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1980 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation

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1960 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation

U.S. Department of the Interior
Stewart L. Udall, Secretary
FISH AND WILDLIFE SERVICE
John A. Gottschalk, Director

U.S. Department of Commerce
Luther H. Hodges, Secretary
BUREAU OF THE CENSUS
Robert W. Burgess, Director

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Foreword

This is the sixth in a series of surveys of fishing and hunting conducted by the U.S. Fish and Wildlife Service at 5-year intervals since 1955. In addition to a broad range of information on fishing and hunting, this 1980 survey provides an expanded set of data on nonconsumptive wildlife-associated activities such as wildlife observation, photography, and feeding. Publication of the survey results include this national report and 50 individual State reports.

The survey findings demonstrate that fishing, hunting, and other wildlife-related activities appeal to all kinds of people: male and female, Black and White, urban and rural. Millions of Americans get outdoors to enjoy these activities, spend billions of dollars in the process, and enjoy hundreds of millions of days at these pastimes.

Fish and wildlife have a special importance for us, and that importance is being more clearly recognized as we intensify our efforts to preserve, restore, and improve our environment. Fish and wildlife are needed, not only because of the recreation they provide, as described in this report, but also because of their important ecological role. To a considerable extent, fishermen and hunters pay their own way by financing fish and wildlife programs through fees for licenses and tags and through excise taxes on equipment purchased. As with previous national surveys, the 1980 survey was paid for by proceeds from excise taxes on sporting arms, ammunition, and fishing tackle. The States, which share the tax proceeds through the Federal Aid in Fish and Wildlife Restoration Programs, requested this survey.

The survey provides a national perspective for Federal agencies and also directly serves the needs of State fish and game agencies. Information provided by this study will be used by fish and wildlife resource planners and managers at all levels of government. The survey will assist them in establishing the programs and priorities necessary to assure the continued availability of the recreational opportunities provided by our fish and wildlife resources, both now and in the future.

In this day and age, we need fish and wildlife more than ever before, both as an integral part of our environment and for traditional recreational uses. This is a study of the human uses of fish and wildlife. The results reported here reflect some of the values we place on these resources and the important role they play in American life.

Robert A. Jantzen

Robert A. Jantzen, Director
Fish and Wildlife Service

United States
Department of the
Interior

Survey Background and Method

The 1980 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation is designed to gather information about American participation in fishing, hunting, and other forms of wildlife-associated recreation. The national survey of fishing and hunting has been conducted every 5 years since 1955 and represents one of the oldest and most comprehensive continuing recreation surveys. The purpose of the survey is to gather information on the numbers of fishermen and hunters in our country, as well as how often they participate and how much they spend on these activities. The 1980 survey is the first to also gather extensive information about those who observe, photograph, or feed wildlife. Differences and similarities between the 1980 survey and previous surveys are discussed in appendix B.

The planning process for the 1980 survey began in 1978 when the International Association of Fish and Wildlife Agencies (IAFWA) passed a resolution asking the U.S. Fish and Wildlife Service to conduct a national survey of fishing and hunting in 1980. As with previous national surveys, funding for the survey came from the administrative portion of revenues produced by excise taxes on fishing and hunting equipment under the Dingell/Johnson and Pittman/Robertson Federal Aid for Fish and Wildlife Restoration Acts.

In early 1979, the IAFWA was asked to help ensure that fish and game agencies of the 50 States had an opportunity to participate in all phases of planning and design of the survey. Four regional technical committees were set up under the auspices of the IAFWA. Made up of representatives of State fish and game agencies, the committees served as a point of contact for the survey between the States and the Fish and Wildlife Service. They provided initial suggestions and comments about what information the survey should produce and how it should be conducted. The technical committees reviewed alternatives for survey design, draft questionnaires, and, finally, preliminary tabulations of survey results. Reviews of draft materials were also solicited from State fish and game directors and a cross-section of sportsmen's and conservation organizations.

After reviewing comments and suggestions received from those sources about the type of survey to be conducted, the Fish and Wildlife Service in early 1980 made a tentative decision on the nature and estimated cost of the survey to be conducted and once again asked the State agencies for their reaction. No dissenting responses were received.

The 1980 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation produced both this national report and individual State reports for the 50 States. The survey was conducted by the U.S. Bureau of the Census in two phases. In the first phase, a sample of more than 116,000 households nationwide was screened, mostly by telephone, to determine who in the household had hunted, fished, or engaged in some nonconsumptive wildlife-associated activity in 1980. The screening was done in January 1981. Information about all household members 6 years old and older was obtained from an adult member of each household. A 95-percent response rate was achieved for the screening.

The second phase of the survey consisted of detailed in-person interviews conducted in spring 1981 with subsamples of fishermen, hunters, and nonconsumptive users identified in the screening phase. Participants in this detailed phase were limited to those at least 16 years old because of the length and complexity of the questionnaires. Sample sizes were designed to provide statistically reliable results at the State level for fishing and hunting and at the Census geographic division level for nonconsumptive activities. A total of 30,300 fishermen and hunters and 6,000 nonconsumptive users were interviewed. A sample of those who had fished or hunted and engaged in nonconsumptive activities were interviewed with both questionnaires.

Highlights

Summary

Wildlife-associated recreation is one of this country's most popular forms of outdoor recreation. In 1980, 42.1 million persons 16 years old and older fished, 17.4 million hunted, and 83.2 million took an active role in nonconsumptive forms of wildlife-associated recreation (wildlife observation, photography, or feeding). In all, 99.8 million persons, 59 percent of the population, enjoyed one or more of these recreational activities. The detailed information contained in this report refers only to the 16 years and older group because it was judged that younger persons would be unable to respond accurately to the long and complicated survey questionnaires. The survey did reveal, however, that substantial numbers of youths are involved in wildlife-related activities. In 1980, 11.8 million youths aged 6-15 years fished, 2.0 million hunted, and 11.4 million took active roles in nonconsumptive wildlife activities.

Fishing

This country provides a tremendous variety of sport fishing opportunities, from salmon fishing in the cold waters of the Northwest to fishing for bass in the warm waters of the South. In 1980, 36.4 million freshwater fishermen spent 710.6 million days and $7.8 billion pursuing their sport, an average of 20 days and $214 per angler. That total includes 3.0 million Great Lakes fishermen who accounted for 40.5 million days. Fishing in saltwater accounted for 12.3 million anglers, 147.0 million days, and $2.4 billion, representing averages of 12 days and $200 per saltwater fisherman. In total, 42.1 million anglers spent 857.6 million days and $17.3 billion. This expenditure total includes special equipment and land leasing and ownership not apportioned by freshwater and saltwater fishing.

Hunting

Since the earliest days of this Nation, hunting has provided a broad range of satisfaction to millions of Americans. In 1980, 17.4 million persons participated in some kind of hunting, representing a total effort of 330.2 million hunting days and expenditures of $8.5 billion. Hunting for big game (deer, elk, etc.), accounted for 11.8 million hunters, 112.8 million days, and $2.8 billion. Small game hunting (rabbits, squirrels, etc.) totaled 12.4 million hunters, 151.2 million days and $1.7 billion. Migratory bird hunters numbered 5.3 million, hunted on 42.9 million days, and spent $638 million. Hunting for other types of animals such as fox and raccoon accounted for 2.6 million hunters, 38.4 million hunting days, and $251 million.

Trends in Fishing and Hunting

Trends in fishing and hunting can be shown by adjusting survey results to achieve comparability with previous surveys of fishing and hunting. Since the first national survey was conducted in 1955, the numbers of fishermen and hunters have increased from 20.8 to 41.9 million fishermen and 11.8 to 16.8 million hunters in 1980. Expenditures and days of participation have also shown increases going from $2.8 billion in 1955 to $27.2 billion in 1980. Days of participation increased from 397.4 million days in 1955 to 1,001.6 million days in 1980 for fishing and 169.4 million days to 387.3 million days for hunting. Further comparisons between the 1955-1980 surveys are given in appendix B.

Nonconsumptive Wildlife Use

Observing, photographing, and feeding wildlife provide enjoyment to millions of persons in the United States, many of whom also fish and hunt. In 1980, 28.8 million nonconsumptive users aged 16 and older took trips of at least 1 mile from their home primarily for the purpose of observing, photographing, or feeding wildlife, spending $4.0 billion in the process. Some 69.4 million persons enjoyed wildlife in some way while on a trip taken for another purpose. Millions more enjoy wildlife-related activities around their homes. In 1980, 79.7 million individuals observed, photographed, or fed wildlife at home.

Substantial numbers of sportsmen enjoy nonconsumptive wildlife activities in addition to fishing or hunting. Some 65 percent of all sportsmen engaged in some active nonconsumptive activity in 1980.

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Summary

Introduction

Since the first survey was conducted in 1955, the National Surveys of Fishing and Hunting have become an important source of information about the vast array of recreational activities provided by this Nation's fish and wildlife resources. The 1980 National Survey, the sixth in the series, continues that tradition by providing an in-depth and comprehensive description of fishing and hunting activities. In response to requests from State fish and game agencies and other users of the survey, the 1980 survey includes for the first time a detailed accounting of Americans' involvement in wildlife observation, photography, and feeding activities. Coverage of these nonconsumptive wildlife uses in the 1980 survey is not nearly as extensive as that provided for fishing and hunting; the number of interviews related to nonconsumptive activities was less than one-fifth the number of fishing and hunting interviews. Nonetheless, significantly more information was generated about nonconsumptive activities than has ever been available on a nationwide basis before.

Summary Highlights

The 1980 survey revealed that 99.8 million Americans aged 16 and older participated in one or more wildlife-associated activities; 42.1 million fished, 17.4 million hunted, and 83.2 million engaged in a nonconsumptive activity for which wildlife was the primary purpose. Comparable numbers for those between 6 and 15 years of age are 11.8 million fished, 2.0 million hunted, and 12.4 million nonconsumptive users.

There is considerable overlap among hunters, fishermen, and nonconsumptive users. In 1980, 73 percent of hunters also fished, and 30 percent of fishermen also hunted. Among sportsmen, 66 percent of fishermen and 62 percent of hunters were involved in nonconsumptive activities, whereas 36 percent of the nonconsumptive group also hunted and/or fished. The percentages of the population involved in these activities showed regional variations.

Expenditures associated with wildlife-associated activities by participants aged 16 and older totaled $41 billion, making fishing, hunting, and nonconsumptive activities a significant part of the American economy. Of that total, $17.3 billion was for fishing, $8.5 billion was for hunting, and $14.8 billion was for nonconsumptive activities. If spending for equipment in the nonconsumptive category is limited to equipment bought primarily for that purpose, as it already is for fishing and hunting equipment, nonconsumptive spending would be $6.6 billion. Total spending for wildlife-associated activities is then $32.5 billion.

Participation in Wildlife-Associated Recreation

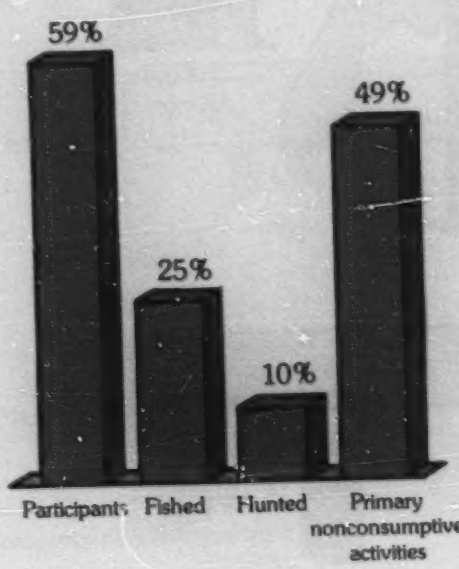
The 1980 survey found that about 100 million Americans aged 16 and older participated in at least one kind of wildlife-related activity. That total included 42.1 million who fished, 17.4 million who hunted, and 83.2 million who engaged in some form of nonconsumptive activity (defined on p.30) where wildlife was the primary focus or purpose. Many individuals, of course, participated in more than one form of wildlife-related activity, which means that the sum of hunters, fishermen, and nonconsumptive users is greater than the total number of participants.

This report focuses on the wildlife-associated activities of those in the population who are 16 years old and older. Of course, substantial numbers of youths between the ages of 6 and 15 also fish, hunt, or engage in nonconsumptive activities. The survey showed that in 1980 11.8 million youths fished and 2.0 million hunted; 1.6 million both fished and hunted. About 11.4 million engaged in nonconsumptive activities where wildlife was the primary aim.

Activity	16 years and older (millions)	6-15 years old (millions)
Fished	42.1	11.8
Hunted	17.4	2.0
Primary nonconsumptive use	83.2	11.4

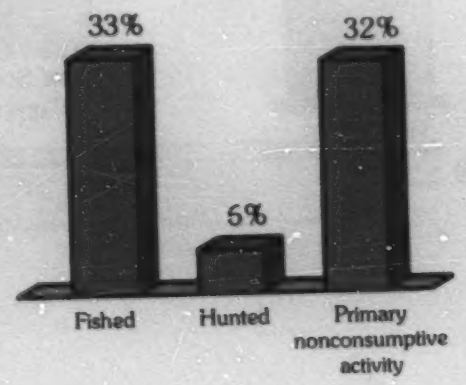
16 years old and older

Percent of U.S. population in age group



6-15 years old

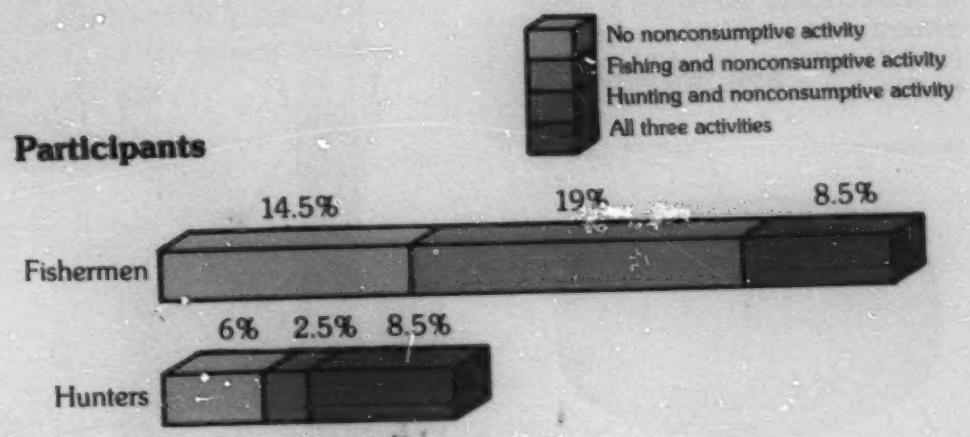
Percent of U.S. population in age group



Diversity of Participation in Wildlife-Associated Activities

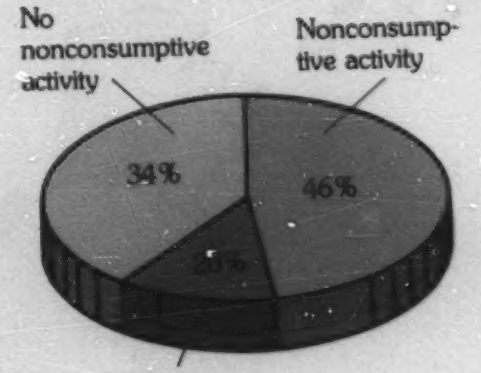
In 1980, 73 percent of those who hunted also fished. Among anglers, 30 percent of those who fished also went hunting. As the chart illustrates, many participants who fished and hunted also engaged in some form of primary nonconsumptive wildlife activity such as observation, photography, or feeding; 66 percent of those who fished and 62 percent of those who hunted were also involved in one or more primary activities. From a different perspective, 36 percent of primary nonconsumptive users fished and/or hunted.

Participants



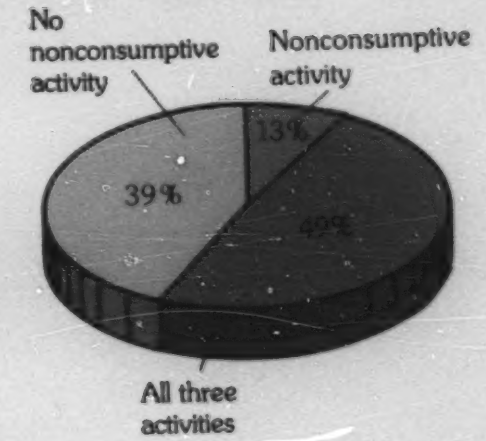
Fishing

(42.1 million)



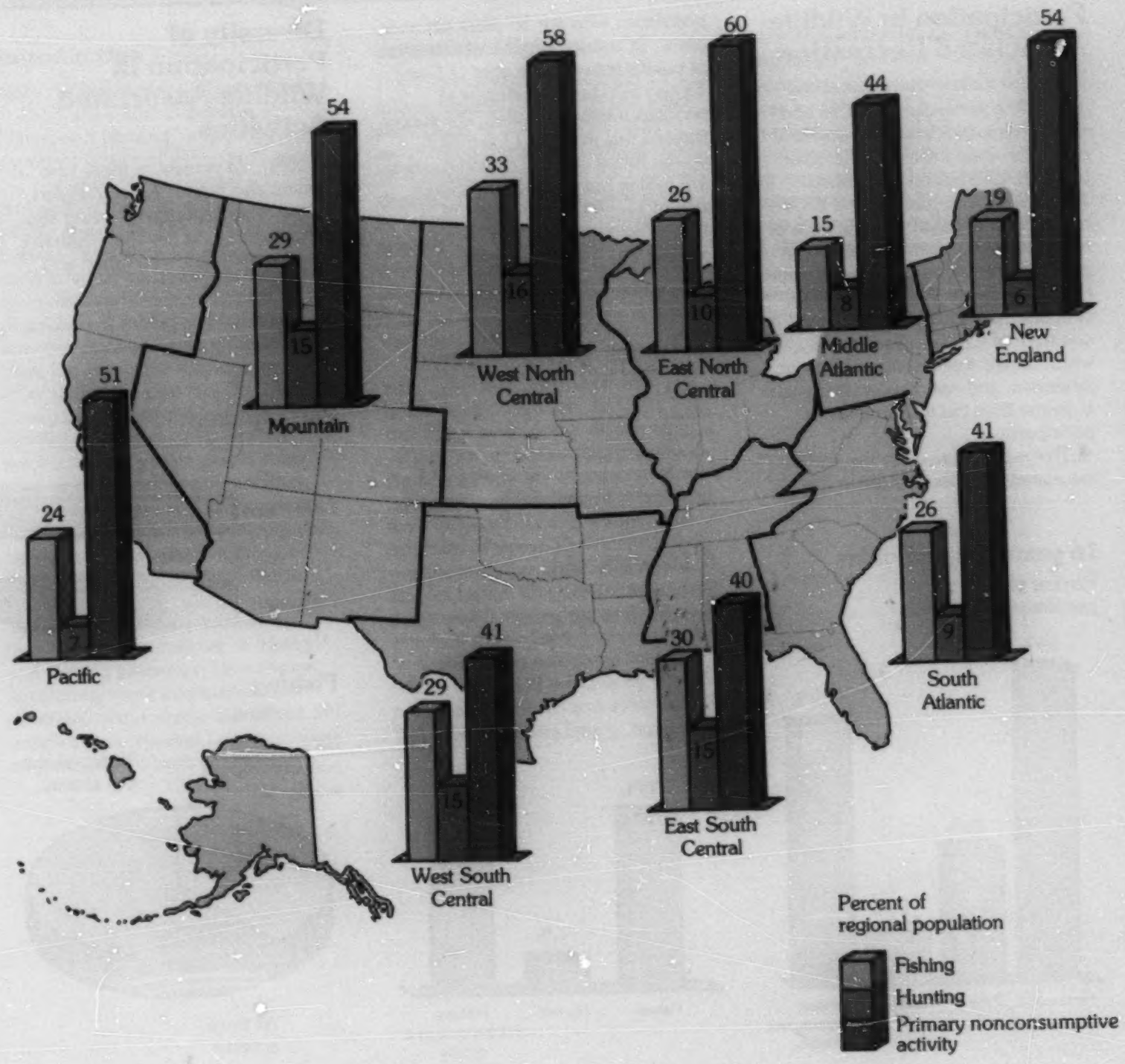
Hunting

(17.4 million)



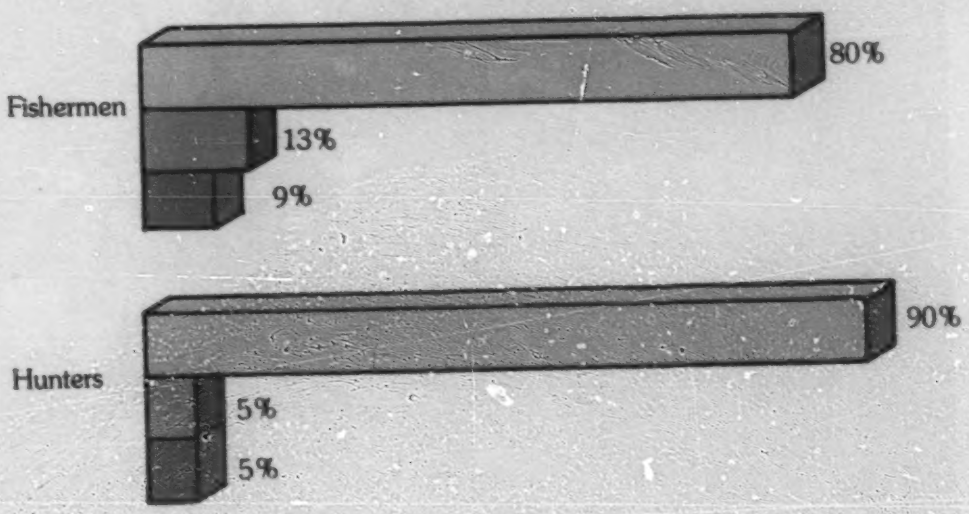
Participation Rates in Geographic Regions

Rates of participation varied across the United States. Fishing ranged from 33 percent of the regional population in the West North Central region to 15 percent in the Middle Atlantic. For hunting, the West North Central region had a 16-percent participation rate, whereas 6 percent hunted in New England. Primary nonconsumptive use ranges from 60 percent of the population in the East North Central region to 40 percent in the East South Central region.



Licensing of Sportsmen

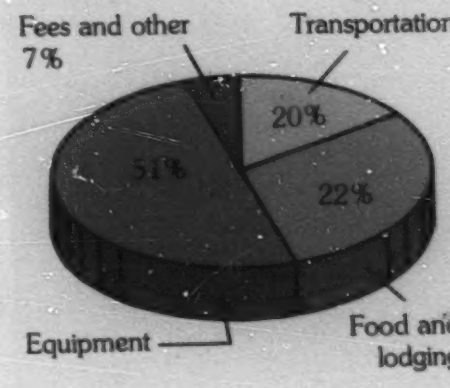
In addition to questions about their fishing and hunting activities, the 1980 survey queried respondents about fishing and hunting licenses. Of all freshwater fishermen aged 16 and older, 29.3 million said that they were licensed, 80 percent of the total. Because of their age or some other reason, 9 percent of fishermen were exempt from buying licenses, while 13 percent of those who fished responded that they were neither licensed nor exempt. In comparison, 90 percent of those who hunted said that they were licensed, with 5 percent exempt and 5 percent neither licensed nor exempt. The "neither licensed nor exempt" category for both fishing and hunting represents both those who did not clearly understand the questions asked as well as those who apparently were fishing or hunting illegally.



Expenditures for Wildlife-Associated Recreation

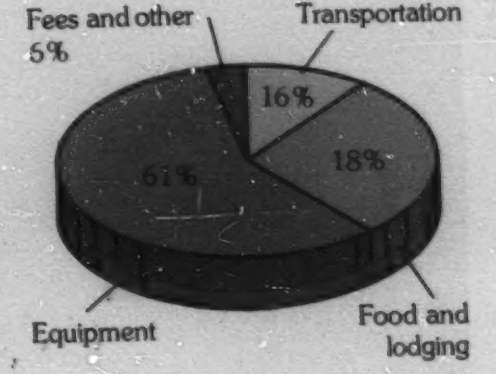
Expenditures for wildlife-associated recreation by participants aged 16 and older totaled $41 billion making fishing, hunting, and nonconsumptive wildlife activities a significant part of the American economy. If spending for equipment in the nonconsumptive category is limited to equipment bought primarily for that purpose, total spending was $32.5 billion. The majority of the $32.5 billion was for equipment, about $17 billion, or 51 percent of the total. Transportation accounted for 20 percent, food and lodging for 22 percent, and other sorts of expenditures for 7 percent.

Expenditures primarily for wildlife-associated activities



(32.5 billion)

All expenditures



($40.9 billion)

Fishing

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Summary

How Many Fishermen

In the United States, 42.1 million people aged 16 and older fished in 1980. About 11.8 million youths aged 6-15 also fished. Adult fishermen took 751.2 million fishing trips and fished for 857.6 million days. They spent a total of $17.3 billion for fishing, representing averages of $412 per fisherman and $20 per day.

Freshwater (including the Great Lakes) was fished by 36.4 million fishermen. This group, 86 percent of all fishermen, took 620.5 million fishing trips and spent 710.6 million days fishing. The Great Lakes were fished by 3.0 million fishermen. They took 35.7 million trips and fished on 40.5 million days. Freshwater fishermen spent $7.8 billion. The average freshwater fisherman spent $11 per day of fishing, and spending averaged $214 per fisherman for the year.

Saltwater fishermen numbered 12.3 million in 1980, 29 percent of all fishermen. They took 130.7 million fishing trips and spent 147.0 million days fishing. Expenditures for saltwater fishing totaled $2.4 billion. The average saltwater fisherman spent $16 per fishing day, or $200 annually. Freshwater and saltwater spending sum to less than total expenditures because some equipment expenses could not be designated by type of fishing.

Spending on food and lodging, transportation, and fishing equipment accounted for most of the spending of both freshwater and saltwater fishermen; 88 percent of all freshwater fishing expenditures fell into these three categories as did 85 percent of saltwater fishing expenditures. About 38 percent of the freshwater fishermen's spending was for food and lodging, 31 percent was for transportation, and 19 percent was for equipment. Saltwater anglers spent 38 percent of their total expenditures for food and lodging, 25 percent for transportation, and 21 percent for equipment.

What Kinds of Fish

In freshwater, excluding the Great Lakes, bass and panfish were each sought by about 18 million anglers on 333 million days. Catfish were sought by 13.3 million anglers on 236.7 million days. These three widespread and popular species accounted for over 65 percent of the effort directed toward catching particular fish. Trout were the species fished on 10 percent of the days. They were sought by 10.6 million anglers on 144.2 million days. Perch and salmon were the most popular species sought on the Great Lakes. Among the anadromous species selected for special attention in the saltwater category, striped bass were sought on 24.8 million days and salmon on 7.6 million days.

Where and How People Fish

Fishermen enjoy their sport in a variety of settings. Of the 36.4 million freshwater fishermen, 40 percent fished manmade lakes and reservoirs of 10 acres or more, 23 percent fished in manmade lakes and ponds of less than 10 acres, 40 percent fished natural lakes and ponds, and 43 percent fished in rivers and streams. Of the 12.3 million saltwater fishermen, 55 percent fished "surf and shore"; 37 percent fished the deep sea; and 43 percent fished in saltwater sounds, bays, and tidal inlets and streams.

Many fishermen engaged in special kinds of sport fishing. About 2 million went ice fishing, and 1.2 million recreational fishermen used nets or seines. Spear fishing appealed to 400 thousand; 300 thousand used bow and arrow; and 1 million went gigging for frogs.

The overwhelming majority of American fishermen (91 percent) fished in their States of residence. In addition, 24 percent fished in other States and 3 percent fished in other countries. About 75 percent of all fishermen fished only in their States of residence.

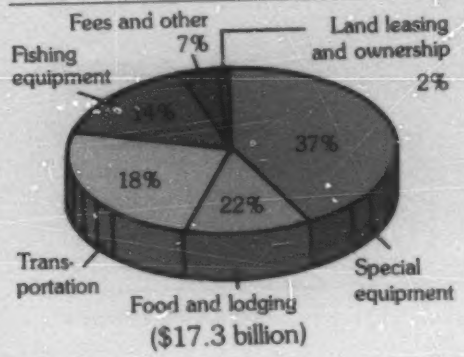
Who Fishes

Substantial numbers of both men and women fished. Fishing was a recreational activity of 36 percent of all men and 15 percent of all women. Fishing was quite popular among young men, where 44 percent of 16- and 17-year-olds fished. Among men and women, 31 percent of 25-34-year-olds fished in 1980, as did 15 percent of those aged 65 years and older. An estimated 30 percent of the population in towns and rural areas fished as did 22 percent of those in small cities and 14 percent in big cities. Fishermen come from all economic groups in the U.S. population. In 1980, one-half of the people in the United States had household incomes of under $21,000 (median household income). Excluding those not reporting their income, 47 percent of fishermen had household incomes under $20,000 in 1980.

Major Highlights

Approximately 42.1 million Americans aged 16 and older fished in 1980. Fishermen took 751.2 million fishing trips that accounted for 857.6 million days of fishing. On the average, fishermen took 18 fishing trips in 1980 and fished for 20 days. They spent $17.3 billion for fishing. Food and lodging on fishing trips accounted for $3.9 billion, or 22 percent of the total. Transportation accounted for $3 billion (18 percent) and fishing equipment for $2.5 billion (14 percent). Other expenditures were licenses, dues, and subscriptions for $601 million (4 percent); rental and other fees of $528 million (3 percent); land leasing and ownership of $340 million (2 percent); and special equipment (boats, vans, etc.) used primarily for fishing of $6.4 billion (37 percent), which did not distinguish between freshwater and saltwater use.

Fishermen	42.1 million
Trips	751.2 million
per fisherman	18
Days	857.6 million
per fisherman	20
Expenditures	$17,325 million
per fisherman	$412
per day	$20

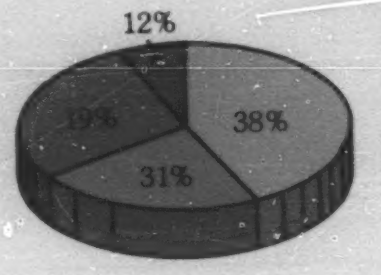


($17.3 billion)

Freshwater Fishing

About 36.4 million Americans aged 16 and older fished in freshwater in 1980, 86 percent of all fishermen. Freshwater fishing accounted for 620.5 million fishing trips and 710.6 million days of fishing. Fishermen spent $7.8 billion on freshwater fishing. On the average, freshwater fishermen spent 20 days and $214 at the sport in 1980. Spending amounted to $11 per day. Expenditures for food and lodging accounted for $2.9 billion; 38 percent of the total. Transportation expenditures of $2.4 billion (31 percent) and fishing equipment of $1.5 billion (19 percent) were the additional major expenditures types. Fishermen also spent $260 million for rental and other fees (3 percent), $293 million (4 percent) for licenses, tags, and permits, and $369 million (5 percent) for other equipment used primarily for freshwater fishing.

Fishermen	36.4 million
Trips	620.5 million
per fisherman	17
Days	710.6 million
per fisherman	20
Expenditures	$7,794 million
per fisherman	$214
per day	$11



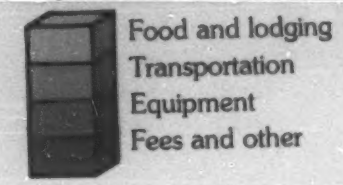
($7.8 billion)

Great Lakes Fishing

Fishing in the Great Lakes constitutes part of the total freshwater fishing effort described in the preceding section, but because of its unique character, the survey distinguished Great Lakes fishing from other freshwater fishing. Roughly 3.0 million fishermen fished the Great Lakes in 1980, taking 35.7 million trips and fishing for 40.5 million days. Of the $5.6 billion freshwater fishermen spent for food, lodging, transportation, and fees, $373 million, or 7 percent, was spent for Great Lakes fishing. Other expenditure categories could not distinguish between Great Lakes and other freshwater fishing. On the average Great Lakes fishermen fished for 13 days and spent $124 apiece in 1980 for food, lodging, transportation, and fees. Spending for these three categories amounted to $9 per fishing day.

Fishermen	3.0 million
Trips	35.7 million
per fisherman	12
Days	40.5 million
per fisherman	13
Expenditures[1]	$373 million
per fisherman	$124
per day	$9

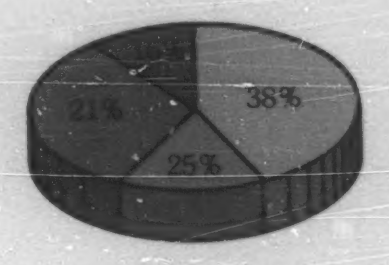
[1]Food, lodging, transportation, and fees



Saltwater Fishing

Some 12.3 million Americans went fishing in saltwater in 1980, 29 percent of all fishermen. Saltwater fishing accounted for 130.7 million fishing trips and 147.0 million days of fishing. Expenditures for saltwater fishing totaled $2.4 billion. On the average, saltwater fishermen fished for 12 days and spent $200 in 1980. Spending amounted to $16 per fishing day. Expenditures for food and lodging of $926 million made up a large portion of total saltwater fishing expenditures (38 percent), with transportation ($611 million, 25 percent) and equipment ($509 million, 21 percent) the other major categories. Privilege and other fees of $268 million (11 percent); other equipment used primarily for saltwater fishing of $90 million (4 percent); and licenses, tags, and stamps of $15 million (1 percent) made up the rest of the total.

Fishermen	12.3 million
Trips	130.7 million
per fisherman	11
Days	147.0 million
per fisherman	12
Expenditures	$2,419 million
per fisherman	$200
per day	$16

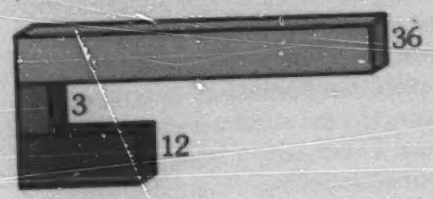


($2.4 billion)

Comparative Highlights of Types of Fishing

Comparisons of saltwater fishing data to those for freshwater fishing show that even though freshwater fishermen spent roughly three times as much money, expenditures per fisherman were roughly the same. In addition, expenditures per day by saltwater fishermen were relatively high, reflecting the higher cost of saltwater fishing.

Fishermen
(millions)

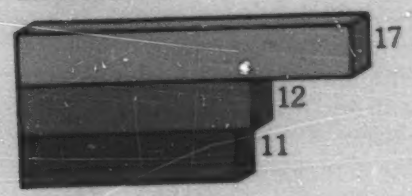


Expenditures
(billions of dollars)

Expenditures per fisherman

Trips
(millions)

Trips per fisherman



Expenditures per day

Days
(millions)

Days per fisherman

[1]Food, lodging, transportation, and fees

Fishing for Selected Types of Fish

Of the 36.4 million freshwater fishermen, roughly 18 million fished for bass and/or panfish. Among Great Lakes fishermen, perch and salmon/steelhead were two popular species groups. In terms of days of fishing, 19 million were spent fishing for perch.

Only select anadromous species were singled out by the survey among saltwater species. An impressive 20 percent of all saltwater fishermen sought striped bass in 1980, and 9 percent fished for salmon.

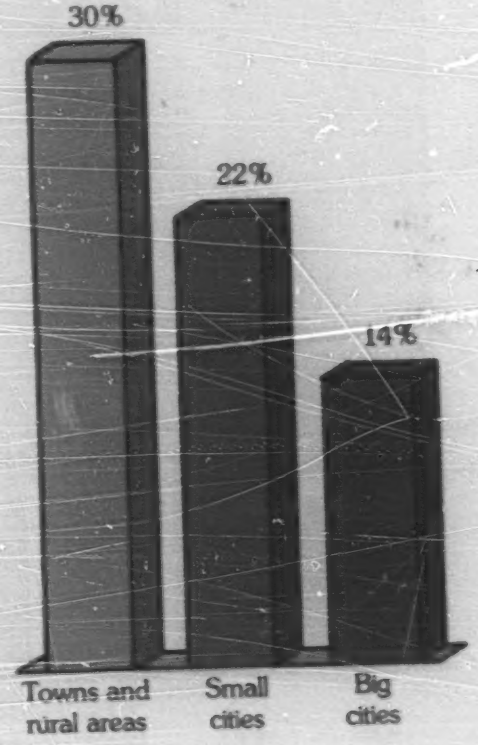
Fish	Fishermen (thousands)	Days (millions)
FRESHWATER[1]		
Bass	18,259	333
Panfish	18,877	333
Catfish	13,339	237
Walleye and sauger	4,418	68
Northern pike	4,458	67
Trout	10,627	143
Salmon	1,323	18
Striped bass	1,751	34
Anything	5,647	78
Other	3,294	62
GREAT LAKES		
Bass	710	10
Walleye and sauger	792	11
Northern pike	393	4
Pickerel and muskie	172	2
Panfish	507	9
Perch	1,420	19
Catfish	471	7
Salmon and steelhead	964	10
Lake trout	715	7
Other trout	448	5
White bass	202	4
Sheepshead	215	4
Smelt	337	2
Anything	379	4
Other	130	1
ANADROMOUS		
Salmon	1,095	8
Striped bass	2,510	25

[1]Excludes Great Lakes

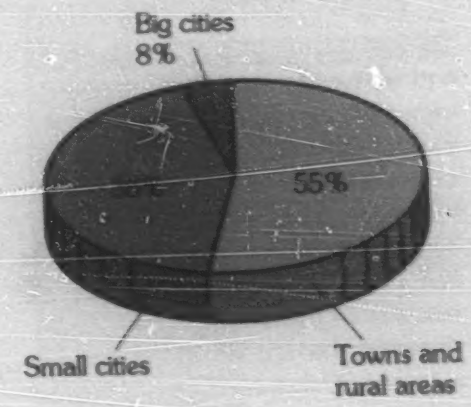
Participation Rates, by Area of Residence

The majority of American fishermen, 55 percent, live in small towns (less than 2,500 population) and rural areas; 30 percent of the population in those areas fished in 1980. Persons living in small cities (population 2,500-499,999) made up 38 percent of all fishermen; 22 percent of the population of small cities fished. The populations of big cities (population 500,000 or more) where 14 percent of the population fished, contributed 8 percent of all fishermen.

Percent of population who fished

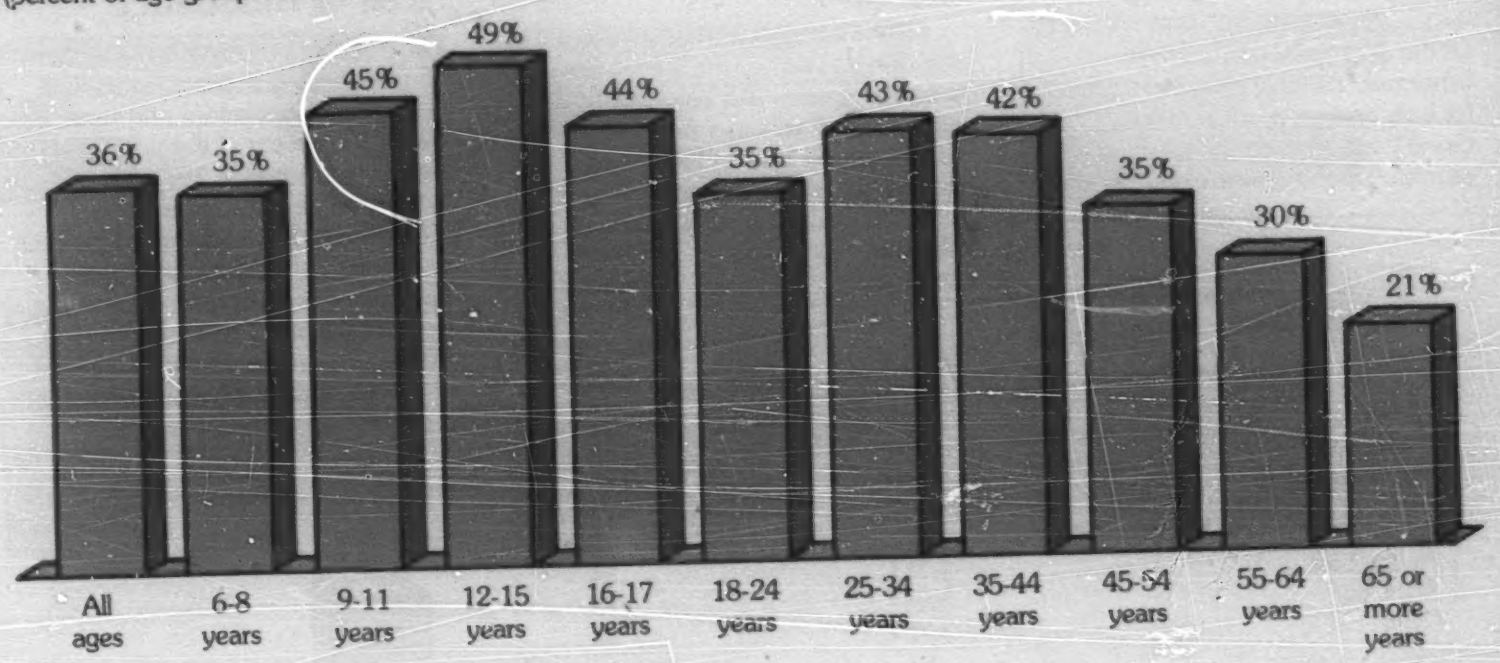


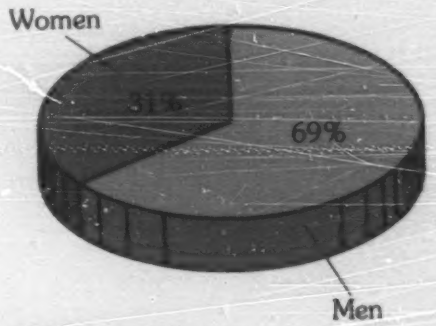
Percent of all fishermen



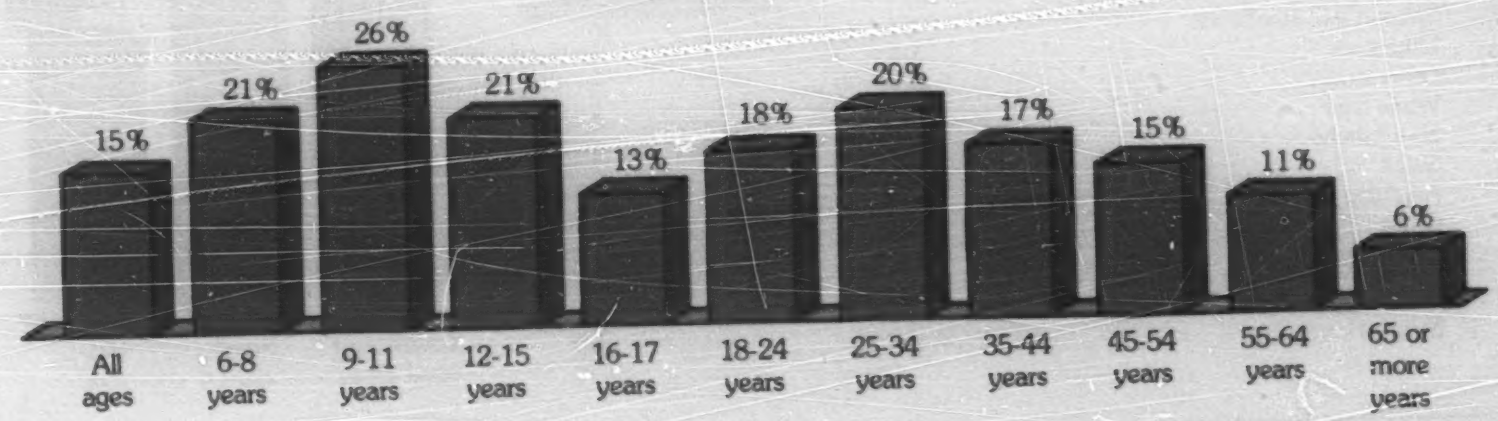
Participation of Men and Women

Substantial numbers of both men and women fished in 1980. Among men aged 16 and older, 36 percent participated compared to 15 percent of women. Of a total of 42.1 million fishermen, 69 percent were men and 31 percent were women. For men 16 and 17 years old, the participation rate was 44 percent. For those 25-34 years old, the rate was 43 percent for men and 20 percent for women; among those aged 65 and older, 21 percent of men and 6 percent of women fished in 1980. Because the 25-34-year-old category includes a large number of persons born during the baby boom that category now accounts for a large number of fishermen (11.8 million persons of both sexes).



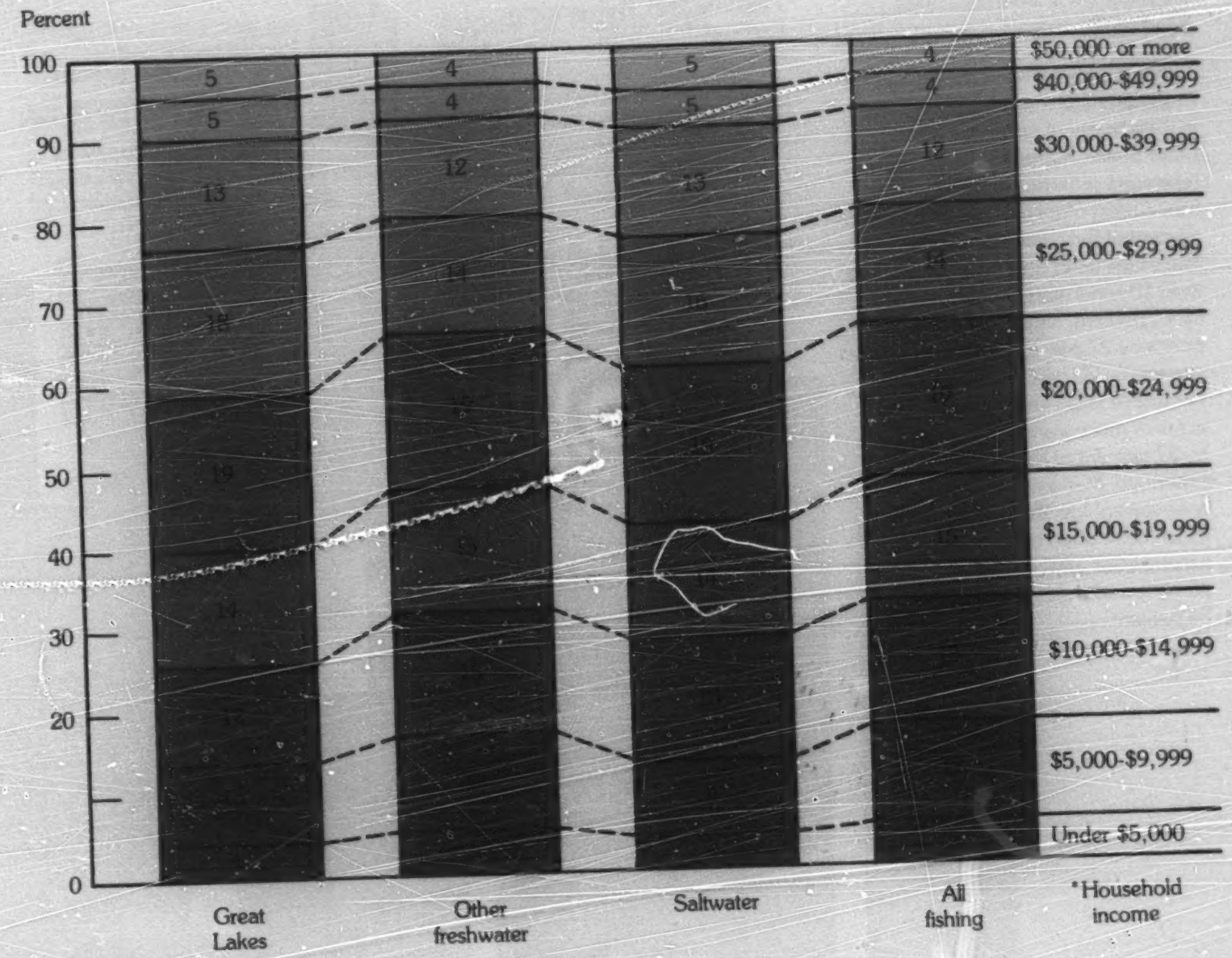


Percent of fishermen by sex



Household Income, by Type of Fishing

Fishermen come from all income groups in the U.S. population. Excluding those who did not report their income, 47 percent of all fishermen lived in households with annual incomes of less than $20,000. For Great Lakes fishermen, 40 percent belonged to households with annual incomes of less than $20,000 as did 42 percent of saltwater fishermen and 47 percent for other freshwater fishermen. At the other end of the income spectrum, 8 percent of all fishermen came from households with annual incomes of $40,000 or more. When examined by type of fishing, 10 percent of Great Lakes fishermen and 10 percent of saltwater fishermen were members of households earning $40,000 or more. The figure for other freshwater fishing was 8 percent.

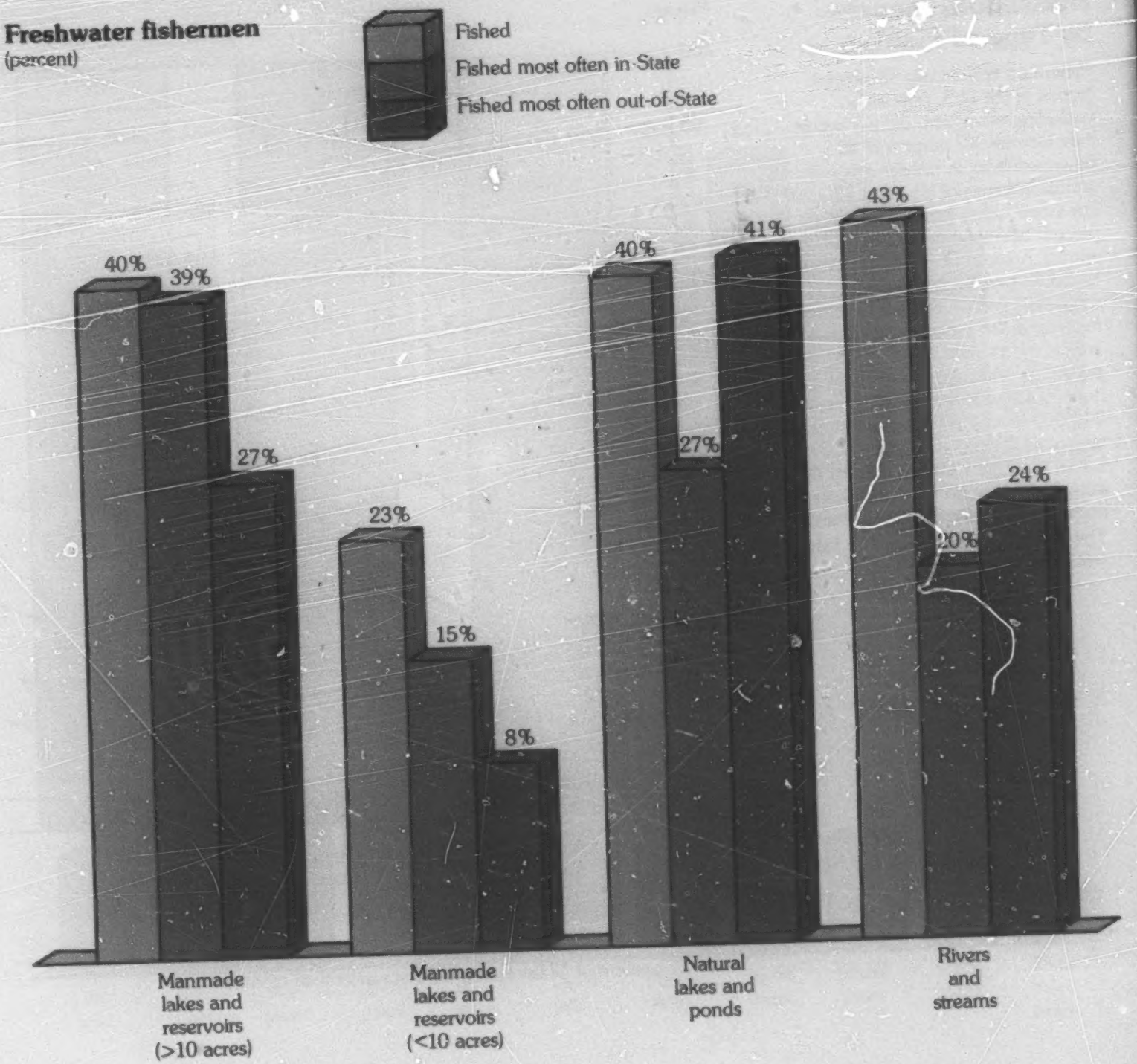


*12 percent of all fishermen did not report their income.

Types of Freshwater Fished

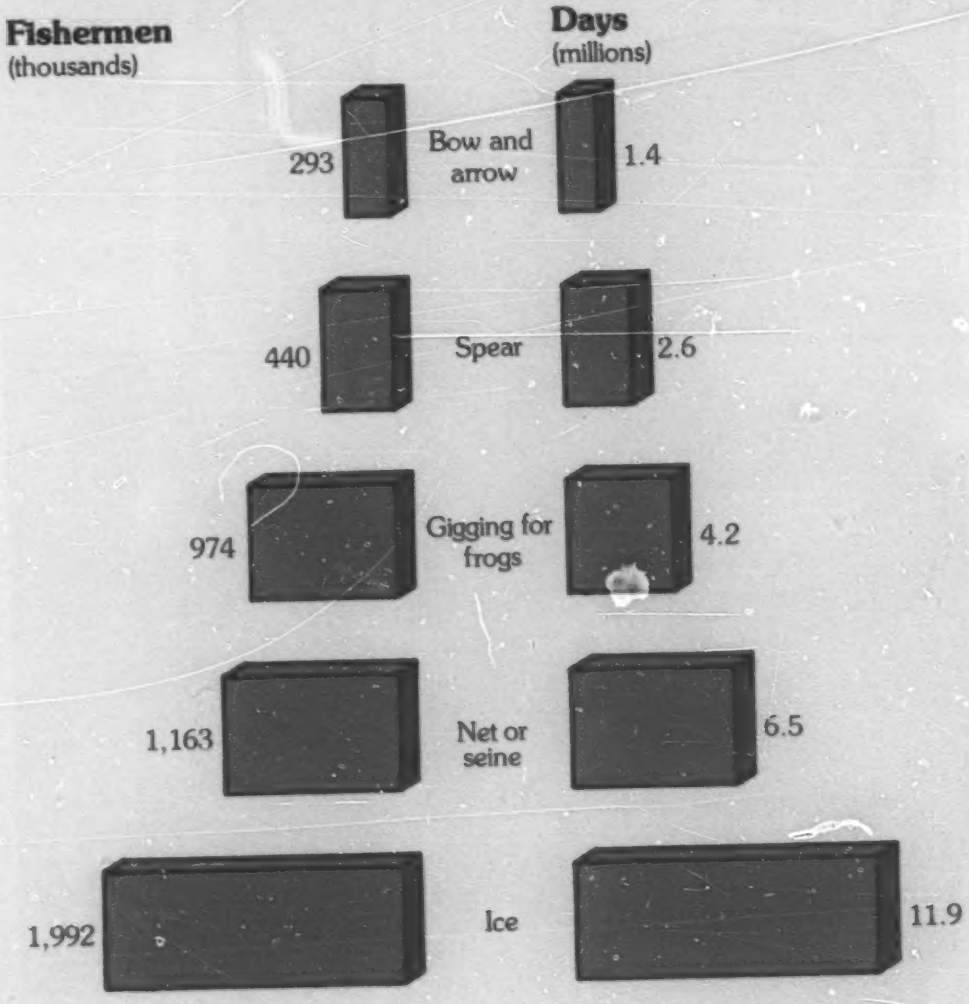
Fishermen were asked the type of freshwater they fished in most often in their States of residence and in other States. Manmade lakes and reservoirs of 10 acres or more were fished most often in-State by 39 percent of freshwater fishermen. Manmade lakes and reservoirs of less than 10 acres were fished most often by 15 percent, natural lakes and ponds by 27 percent, and rivers and streams by 20 percent. Out-of-State, manmade lakes and reservoirs of 10 acres or more were fished most often by 27 percent of freshwater fishermen. Manmade lakes and reservoirs of less than 10 acres were fished most often by 8 percent, natural lakes and ponds by 41 percent, and rivers and streams by 24 percent.

Freshwater fishermen
(percent)



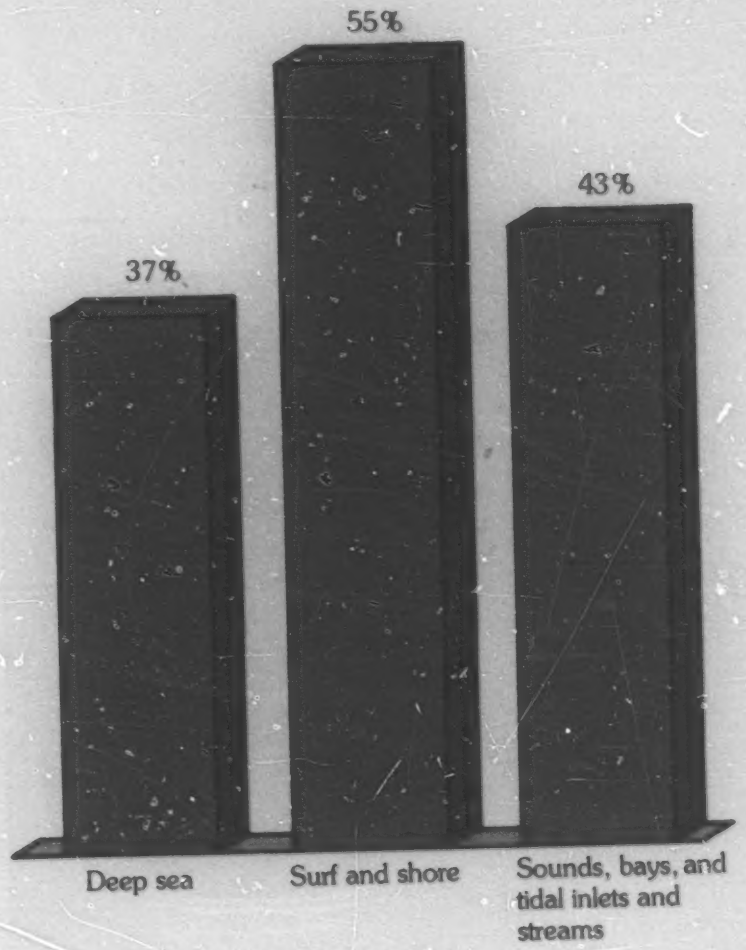
Special Fishing

Many fishermen engage in one or more special kinds of recreational fishing. In 1980, 2.0 million fishermen fished with hook and line through the ice (5 percent of all freshwater fishermen). Ice fishermen fished for 11.9 million fishing days. Recreational fishing with a net or seine accounted for 1.2 million fishermen and 6.5 million fishing days. Spear and bow and arrow fishing accounted for smaller but still substantial numbers of fishermen and fishing days. Gigging for frogs drew 1 million fishermen and 4.2 million fishing days.



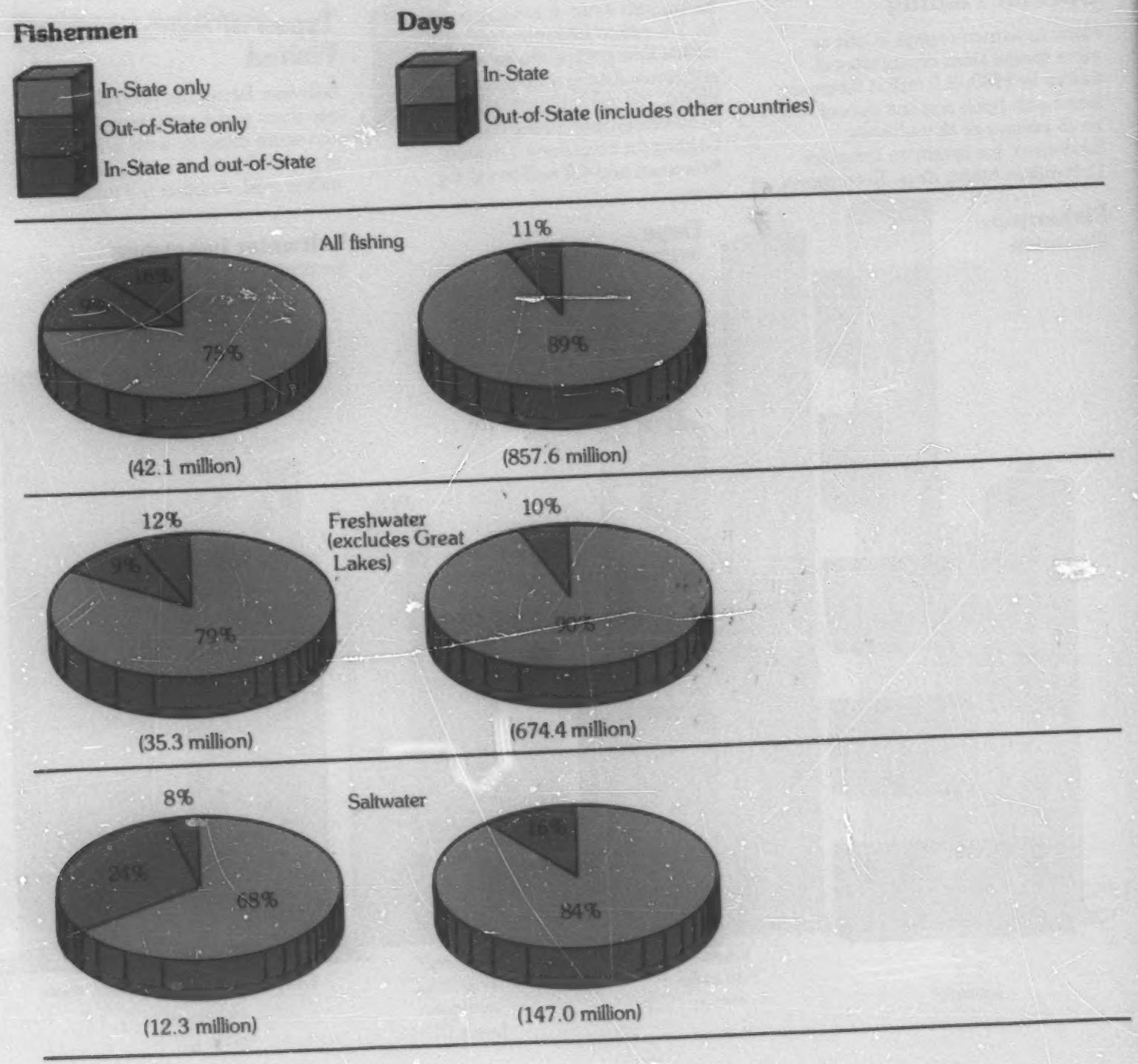
Types of Saltwater Fished

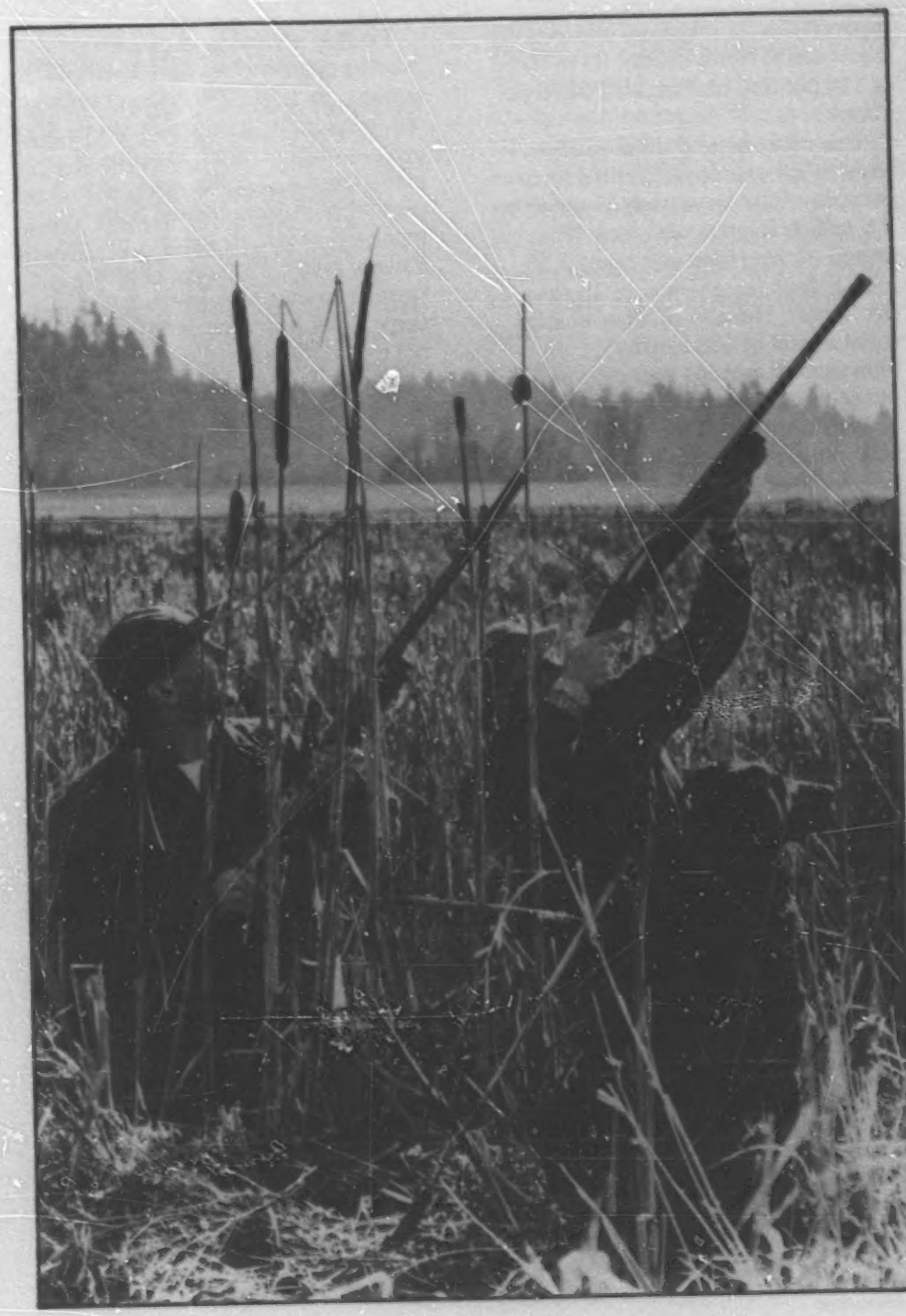
Saltwater fishing has been classified into three major categories. In the surf and shore category were 6.7 million anglers, 55 percent of the 12.3 million total. Another 5.3 million saltwater anglers, 43 percent of the total, fished in saltwater sounds, bays, and tidal inlets and streams. Deep sea fishing accounts for 4.6 million saltwater anglers, 37 percent of the total.



In-State and Out-of-State Fishing

An overwhelming number of American sport fishermen fished in their States of residence, although substantial numbers also traveled elsewhere to fish. Of all fishermen, 75 percent fished only in their States of residence, 9 percent fished only in other States, 16 percent fished in other States in addition to their own. Many fishermen fish both at home and in other States or countries. Among freshwater fishermen, 91 percent fished in their State of residence, and 21 percent fished in other States. Saltwater fishermen, not surprisingly, frequently traveled to other States; 76 percent of saltwater fishermen fished in their States of residence, 32 percent went to other States.





Hunting

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Summary

Millions of Americans take to the field in pursuit of game each fall for one or more of a variety of reasons that make hunting a popular outdoor activity. In 1980, 17.4 million hunters aged 16 and older took 314 million hunting trips totaling 330 million days of hunting, an average of 19 days per hunter. Including special equipment expenses, hunters spent $8.5 billion on their sport, an average of $26 per hunting day and $490 per hunter for the year.

Big game species including deer, elk, and bear were hunted by 11.8 million hunters who logged 91 million hunting trips and 113 million days of hunting, an average of 10 days per hunter. Big game hunters spent $2.8 billion, representing $25 per hunting day and $236 per hunter.

Small game hunting drew 12.4 million hunters who took 145 million hunting trips and hunted 151 million days, an average of 12 days per hunter. Small game hunters spent $1.7 billion, an average of $11 per hunting day and $135 per hunter.

Ducks, doves, and other migratory birds were hunted by 5.3 million hunters who took 40 million hunting trips and hunted 43 million days, an average of 8 days per hunter. Total expenditures for migratory bird hunting amounted to $638 million, an average of $15 per day hunting and $120 per hunter.

Fox, raccoon and other species termed "other animals" for the purpose of the survey were hunted by 2.6 million hunters who took 38 million hunting trips and hunted 38 million days, an average of 15 days per hunter. Hunters of other animals spent a total of $251 million, representing average spending of $7 per hunting day and $95 per hunter.

Men were much more likely to have hunted than women; the survey revealed that 20 percent of men and 2 percent of women had hunted. Roughly 92 percent of all hunters were men.

Towns and rural areas, where 16 percent of the population hunted, accounted for 69 percent of all hunters. Small cities and large cities, with 56 percent of the population, accounted for the remaining 31 percent of hunters.

In addition to modern rifles and shotguns, substantial numbers of hunters used other weapons. There were 2 million bow-and-arrow hunters, 800,000 used antique or primitive firearms, and 1.3 million used pistols or other handguns.

Publicly owned land provides hunting opportunities for millions of hunters. In 1980, 7.9 million hunters did some hunting on public lands, 45 percent of all hunters. In terms of management of public lands, 23 percent of hunters hunted State-managed areas, 19 percent hunted Federal areas, 13 percent hunted locally owned public lands, and 7 percent hunted public lands but could not report the type of ownership.

The overwhelming majority, 88 percent of all hunters, hunt only in the States in which they live. Some 8 percent hunted in their State of residence and in one or more other States, and 4 percent hunted only in States other than their home States.

Hunters are drawn from all income groups. Excluding those who did not report their income, 48 percent came from households with annual income in 1980 of less than $20,000 (in 1980, the median household income for the United States was $21,000).

Major Highlights

Approximately 17.4 million Americans aged 16 and older hunted in 1980, 10 percent of the population. Hunters took 314.0 million hunting trips in 1980, totaling 330.2 million days of hunting and averaging 19 days. Around 12.4 million hunted small game, logging 145.2 million trips and 151.2 million hunting days. Among the other major categories of hunting, big game hunting was also popular with 11.8 million hunters, 91.4 million hunting trips, and 112.8 million days of hunting. Migratory bird hunting numbered 5.3 million hunters, 40.0 million hunting trips, and 42.9 million hunting days. Hunting for other animals accounted for 2.6 million hunters, 37.5 million hunting trips, and 38.4 million days of hunting.

Hunters spent about $8.5 billion pursuing their quarry. That total represents average spending of $26 per hunter per day, and $490 per hunter during 1980. Of the total amount, 28 percent ($2.4 billion) was spent on hunting equipment. An additional 29 percent ($2.5 billion) was spent on special equipment used primarily for hunting. (Special equipment spending was not differentiated by type of hunting.) Transportation expenditures of $1.5 billion (17 percent), food and lodging costs of $1.3 billion (15 percent), fees and other expenditures of $560 million (7 percent), and land leasing and ownership costs of $278 million (3 percent) made up the rest of the total.

Big Game Hunting

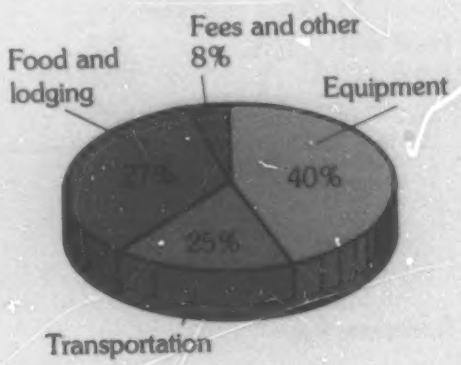
Deer, elk, and other big game species were hunted by 11.8 million hunters aged 16 and over in 1980. Big game hunters took 91.4 million hunting trips and hunted big game on 112.8 million days, an average of 8 trips and 10 days per hunter. They spent a total of $2.8 billion. Of this amount, $1.1 billion (40 percent) was spent for hunting equipment. Food and lodging cost of $759 million (27 percent) and transportation spending of $685 million (25 percent) were also reported. Fees and other expenditures of $226 million (8 percent) made up the remainder. Big game expenditures averaged $236 per hunter and $25 per day of hunting.

Small Game Hunting

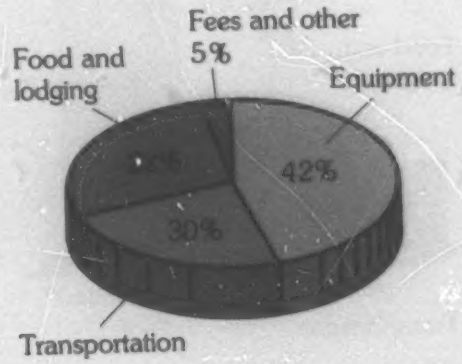
An estimated 12.4 million hunters sought small game in 1980, logging 145.2 million hunting trips and 151.2 million days of hunting. The average small game hunter spent 12 days in the field pursuing that sport. Small game hunters spent a total of $1.7 billion. Of that amount, $705 million (42 percent) was for purchasing hunting equipment. Transportation costs of $502 million (30 percent) and food and lodging expenditures of $366 million (22 percent) accounted for other major purchases. Fees and other spending of $91 million (5 percent) made up the rest. On the average, small game spending was $135 per hunter and $11 per day.

Hunters	17.4 million
Trips	314 million
per hunter	18
Days	330.2 million
per hunter	19
Expenditures	$8,545 million
per hunter	$490
per day	$26

Hunters	11.8 million
Trips	91.4 million
per hunter	8
Days	112.8 million
per hunter	10
Expenditures	$2,789 million
per hunter	$236
per day	$25



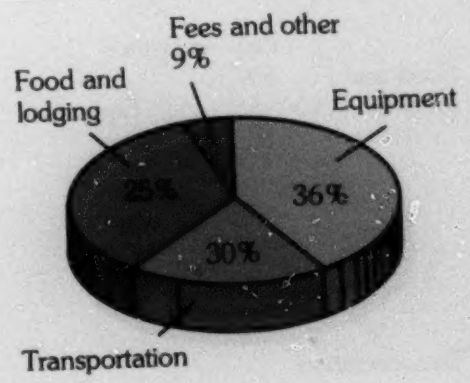
Hunters	12.4 million
Trips	145.2 million
per hunter	12
Days	151.2 million
per hunter	12
Expenditures	$1,663 million
per hunter	$135
per day	$11



Migratory Bird Hunting

Migratory birds, including ducks, geese, doves, and other species, were hunted by 5.3 million hunters in 1980. A total of 40.0 million trips were taken and 42.9 million days were spent hunting migratory birds. On the average, migratory bird hunters spent 8 days afield. Total expenditures were $638 million with equipment expenditures amounting to $232 million, or 36 percent of the total. Transportation costs of $188 million (30 percent) and food and lodging costs of $161 million (25 percent) made up the other major categories. Fees and other expenditures of $56 million (9 percent) accounted for the remainder of total spending. On average, spending amounted to $120 per hunter and $15 per day.

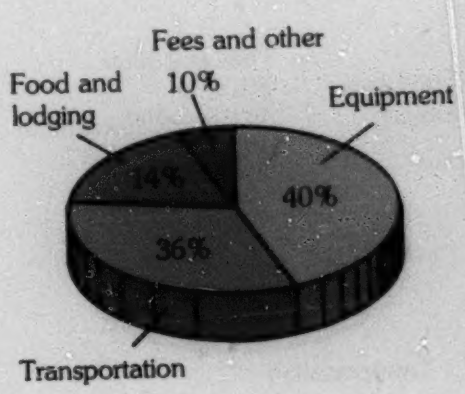
Hunters	5.3 million
Trips	40.0 million
per hunter	8
Days	42.9 million
per hunter	8
Expenditures	$638 million
per hunter	$120
per day	$15



Hunting Other Animals

Other animals, including raccoon, fox, woodchuck, coyote, and crows were hunted by 2.6 million hunters. On 37.5 million trips, they accounted for 38.4 million hunting days, an average of 15 days per hunter. These hunters spent a total of $251 million pursuing their sport. Equipment costs of $100 million accounted for 40 percent of that total. Transportation expenses consisted of $91 million (36 percent), and food and lodging costs were $35 million (14 percent). Fees and other expenditures amounting to $26 million (10 percent) made up the remainder. On average, hunters of other animals spent $95 during the season, $7 per day.

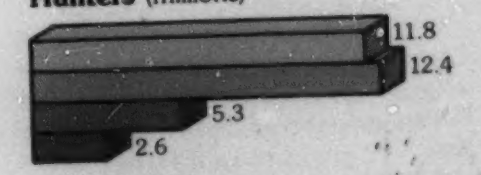
Hunters	2.6 million
Trips	37.5 million
per hunter	14
Days	38.4 million
per hunter	15
Expenditures	$251 million
per hunter	$95
per day	$7



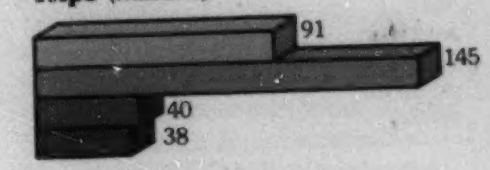
Comparative Highlights of Types of Hunting

Small game hunting attracted a considerable number of hunters and days of hunting. In terms of expenditures, however, big game hunting, at $2.8 billion, accounted for one-half of all expenditures, representing $236 per hunter and $25 per hunting day. The category "other animals" attracted a relatively small number of hunters but hunters who devote considerable time to that sport, an average of 15 days per year.

Hunters (millions)

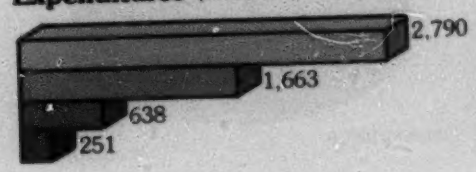


Trips (millions)

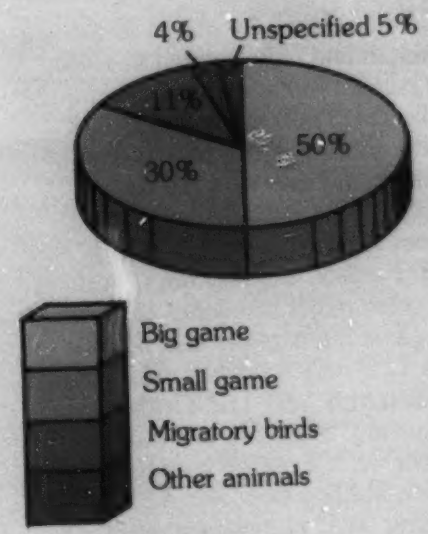


Days (millions)

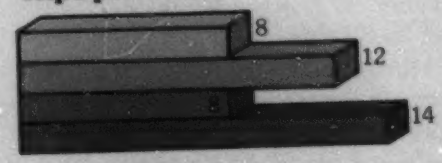
Expenditures (millions of dollars)



Expenditures, by type of hunting

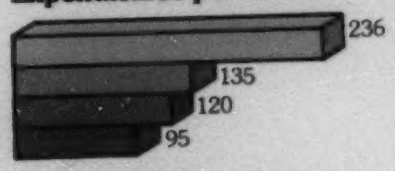


Trips per hunter

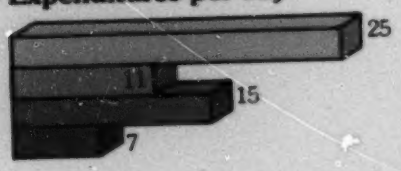


Days per hunter

Expenditures per hunter



Expenditures per day



Hunting for Selected Types of Game

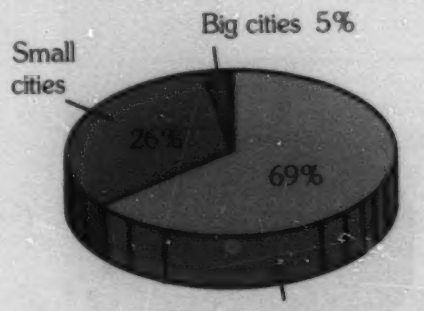
The estimates of numbers of hunters and days of hunting in the accompanying table display the relative popularity of the various species. The estimates should all be interpreted in relation to the standard errors discussed in appendix C.

Game	Hunters (thousands)	Days (thousands)
BIG GAME		
Deer	11,400	102,496
Elk	760	4,984
Antelope	120	486
Moose	50	352
Bear	561	3,932
Wild turkey	1,471	9,875
Other	287	2,456
SMALL GAME		
Rabbits and hares	7,581	78,794
Quail	3,671	36,989
Grouse	2,309	21,440
Hungarian and chukar partridge	659	6,209
Squirrels	6,329	65,962
Pheasant	4,214	34,655
Other	211	2,686
MIGRATORY BIRDS		
Geese	1,397	11,572
Ducks	2,736	22,202
Coots, rails, and gallinules	134	1,198
Woodcock	491	3,754
Doves	3,026	18,775
Band-tailed pigeon	86	784
Other	71	542
OTHER ANIMALS		
Crows	481	4,530
Woodchucks	702	10,443
Raccoons	1,103	18,398
Fox	536	6,032
Coyote	655	7,610
Other	311	4,703

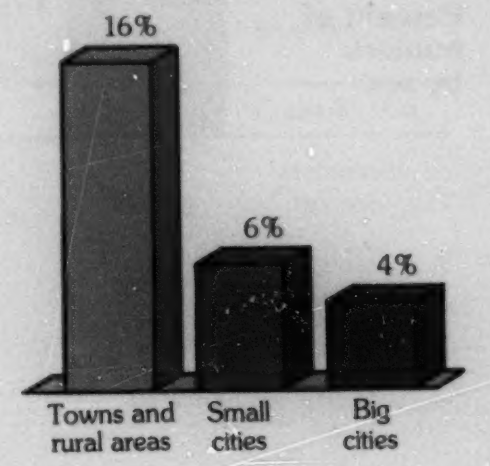
Participation Rates, by Area of Residence

Hunting is overwhelmingly a sport of those who live in towns and rural areas. That category accounts for 69 percent of all hunters but only 45 percent of the total population surveyed. Small cities (2,500-499,999 population) accounted for 26 percent of all hunters and 42 percent of the population, whereas big cities (500,000 or more) included 5 percent of hunters and 14 percent of the population.

Percent of hunters



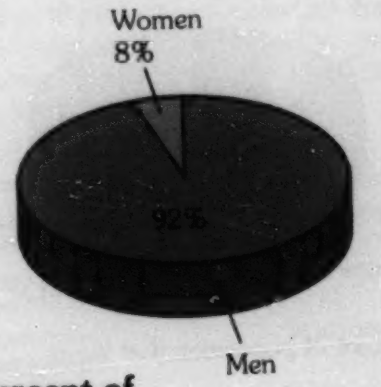
Percent of population that hunts



Participation of Men and Women

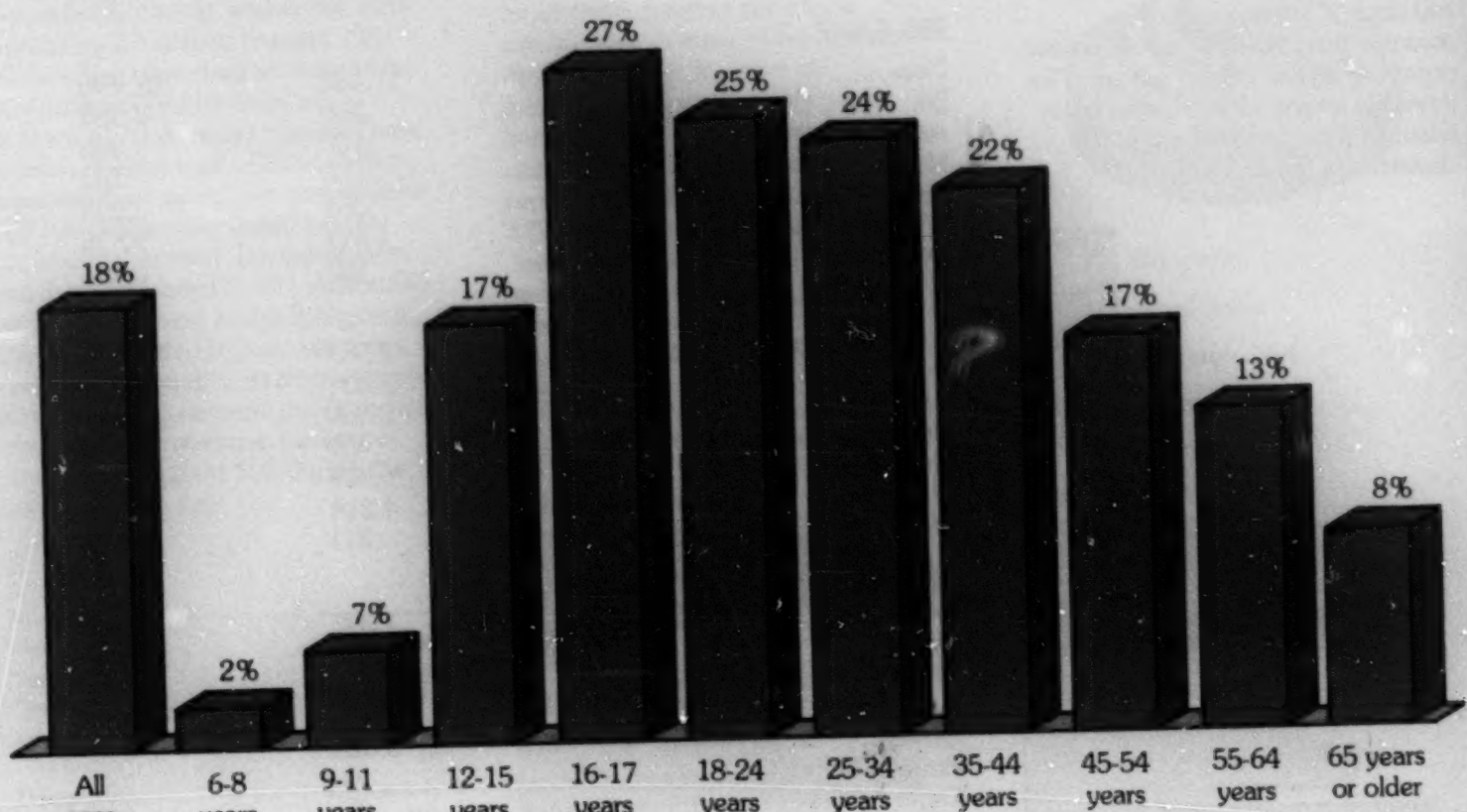
Men were much more likely to have hunted in 1980 than women. The survey revealed that 18 percent of men had hunted compared to 2 percent of women. About 92 percent of all hunters were men whereas 8 percent were women.

Among men 16-17 years old, 27 percent hunted. For men aged 65 and older, 8 percent hunted. The percent of women in the various age groups that hunt is not displayed because the rates of participation in each group are very small.



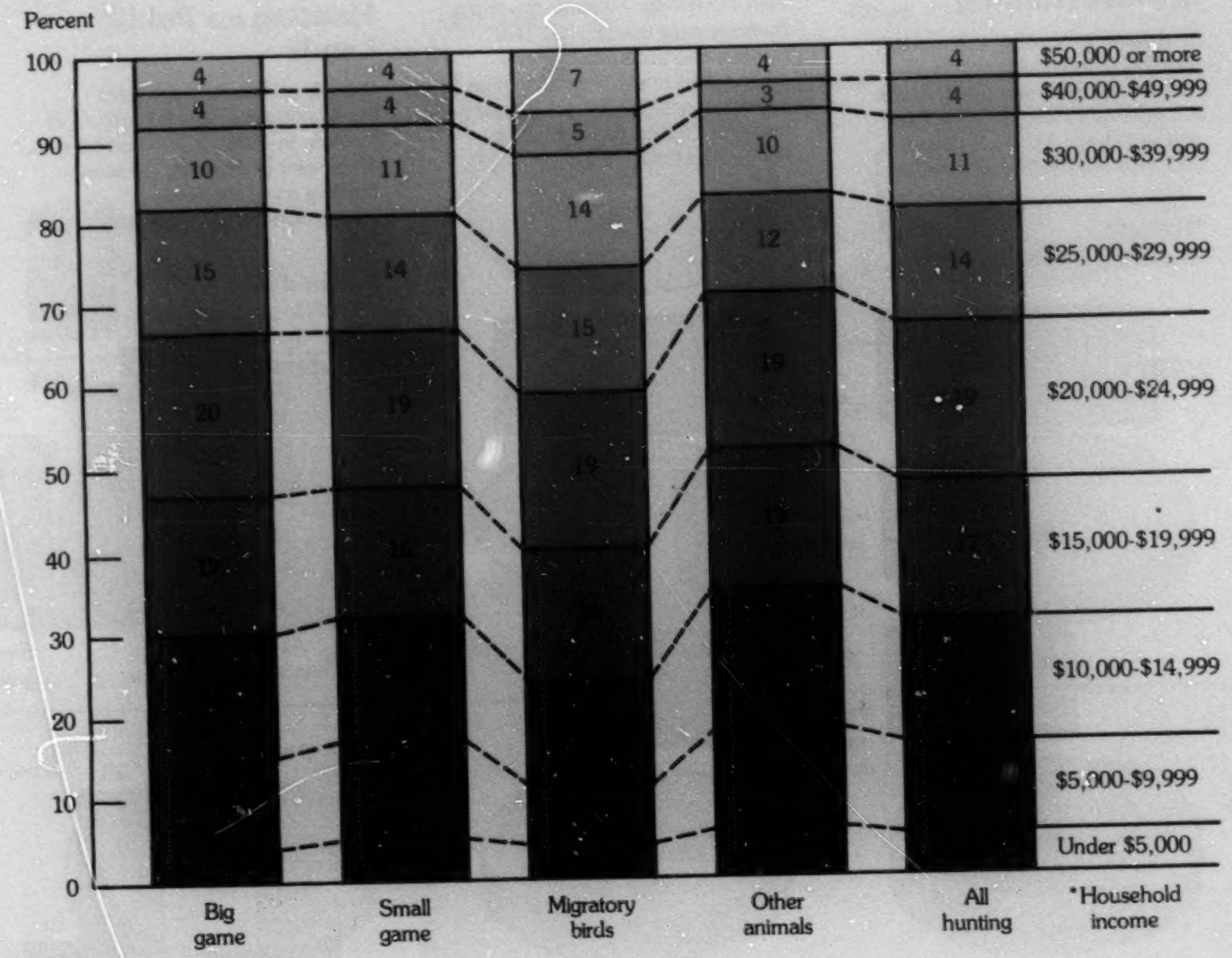
Percent of hunters by sex

Men
(percent of age group who hunted)



Household Income, by Type of Hunting

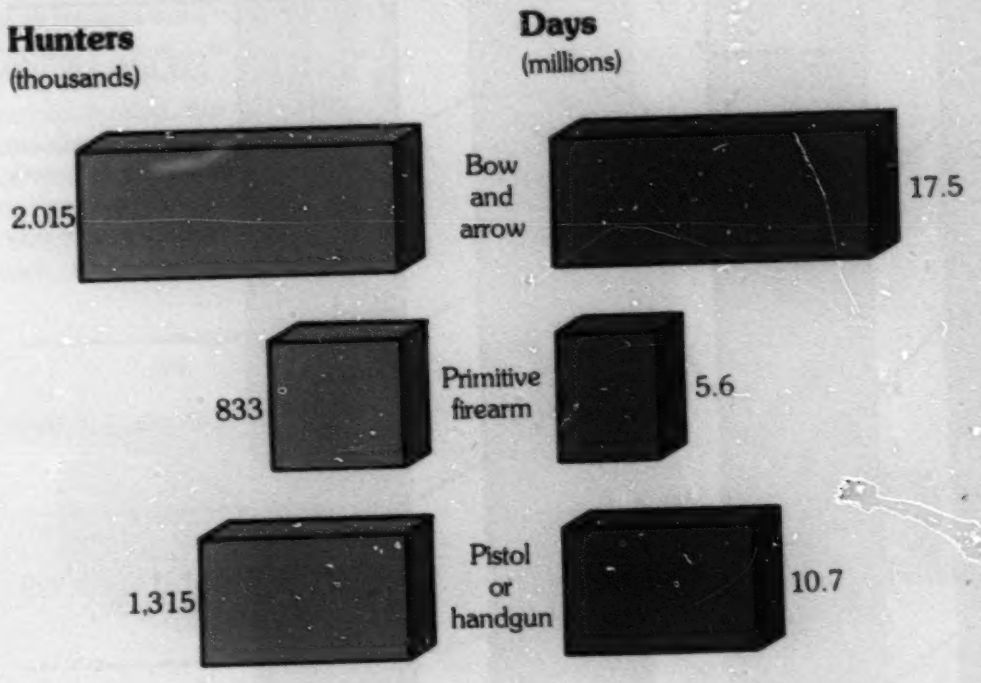
Hunters are drawn from all economic groups in the American population. Excluding those not reporting their household income, 48 percent of all hunters came from households with annual incomes of less than $20,000 in 1980. For big game hunting, 47 percent had household incomes of less than $20,000, 48 percent for small game, 40 percent for migratory birds, and 52 percent for the other animals category.



*12 percent of all hunters did not report their income.

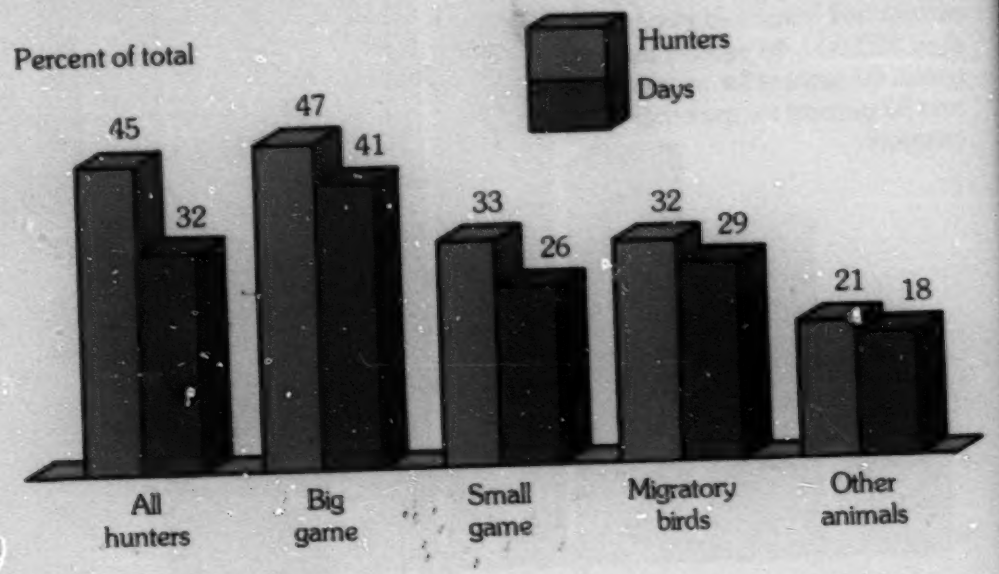
Special Hunting

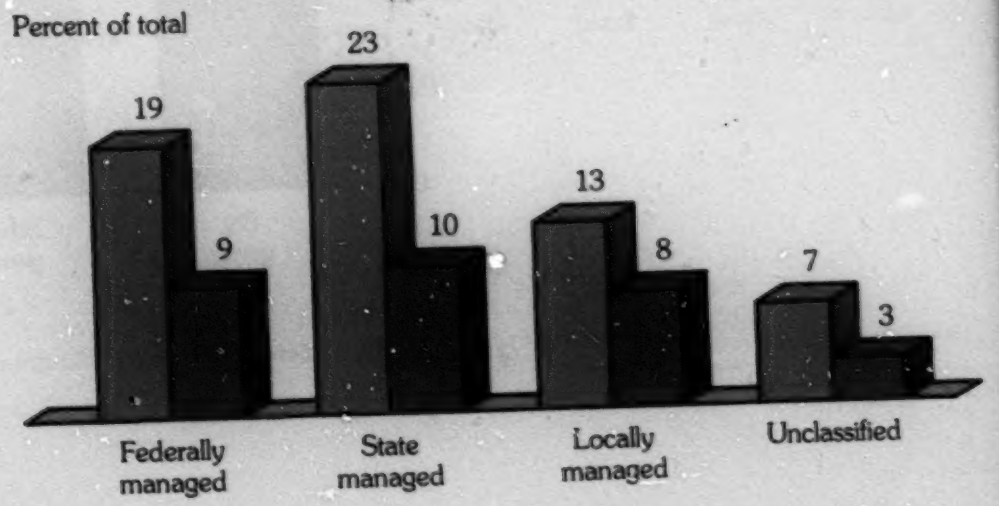
In addition to hunting with modern firearms, substantial numbers of hunters use other weapons. About 2.0 million hunters used bows and arrows to hunt. Bow-and-arrow hunters accounted for 17.5 million days of hunting. Primitive or antique firearms were used by 833,000 hunters and accounted for 5.6 million days afield. Pistols or other handguns were used by 1.3 million hunters. Hunters with handguns tallied 10.7 million days.



Hunting on Public Lands

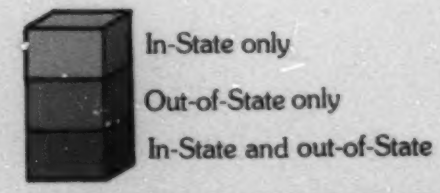
Publicly owned land provides hunting opportunities for millions of hunters. In 1980, 7.9 million hunters, 45 percent of the total, did some hunting on public lands. Approximately 104.4 million hunting days (32 percent) were spent on public lands. In terms of the type of public ownership, 23 percent of hunters hunted State-managed areas, 19 percent hunted Federal areas, 13 percent hunted locally owned public lands, and 7 percent hunted public lands but were unsure of the ownership.

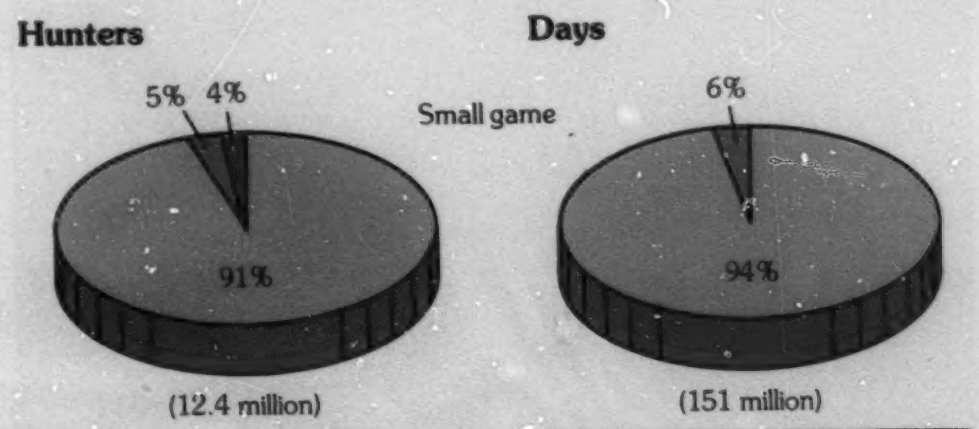


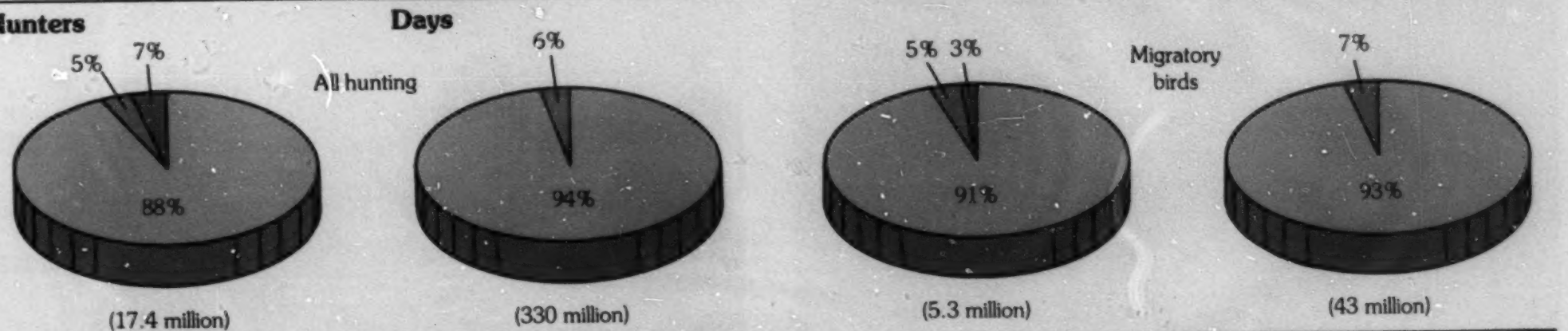


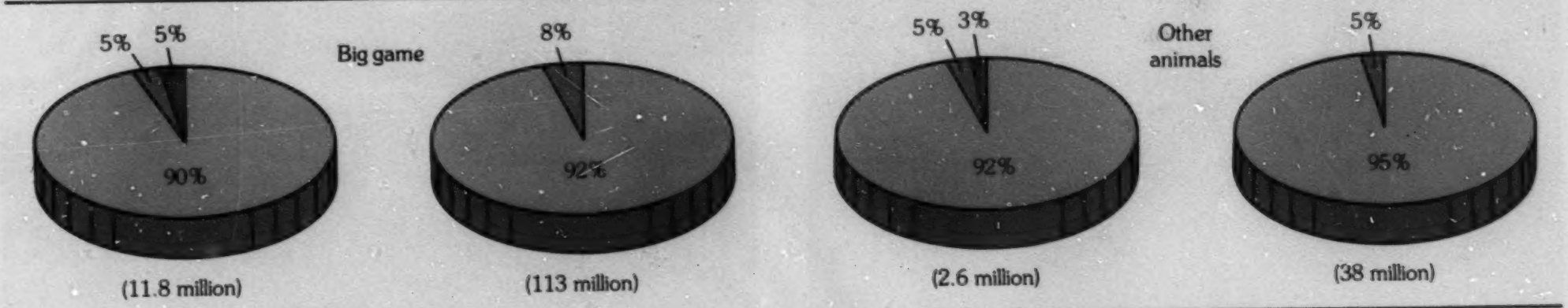
In-State and Out-of-State Hunting

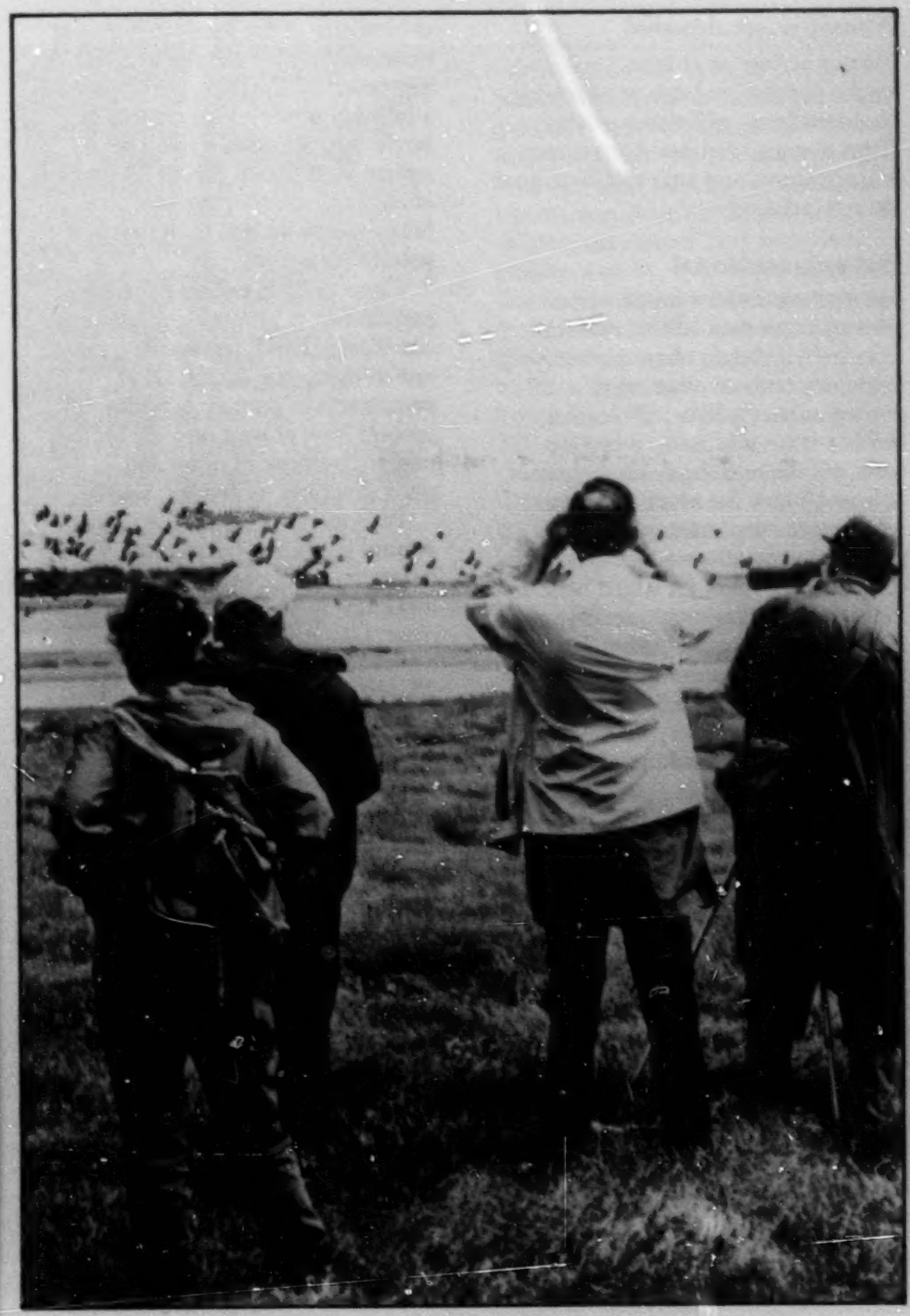
In 1980, 88 percent of all hunters hunted only in their States of residence, 7 percent hunted in their States of residence and in one or more other States, and 5 percent hunted exclusively in States other than their own. A fraction of a percent hunted in other countries. Those percentages varied only slightly depending on the type of hunting.











Nonconsumptive Wildlife Use

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Summary

Framework

For millions of Americans, enjoying wildlife means some form of wildlife observation, photography, feeding, or other nonharvesting activity. Placing all such activities under the general heading of nonconsumptive wildlife use has gained increased acceptance in recent years. The 1980 National Survey marked the first time that detailed data were gathered on nonconsumptive wildlife-associated activities. The nonconsumptive phase was a limited effort compared to the survey of fishing and hunting; the number of interviews with nonconsumptive users totaled less than one-fifth the number of sportsmen interviewed. Nonetheless, a large amount of information was generated.

One of the difficulties in discussing nonconsumptive activities is that in some circumstances the term can mean different things to different people. To try to make terminology in this report as clear as possible, the nonconsumptive sections of the survey were based on a framework with two key criteria: (1) whether involvement with wildlife was the primary purpose of the activity or secondary to some other purpose and (2) whether the activity was residential (in the immediate vicinity of home) or nonresidential (more than 1 mile from home). The two criteria result in four combinations:

	Non-residential	Residential
Primary	✓	✓
Secondary	✓	✓

Primary nonresidential

Trips or outings of at least 1 mile for the primary purpose of observing, photographing, or feeding wildlife. (Trips to zoos, circuses, aquariums, and museums and trips to fish or hunt are not included.)

Primary residential

Activities around the home whose primary purpose is wildlife related, including (1) closely observing or trying to identify birds or other wildlife, (2) photographing wildlife, (3) feeding birds or other wildlife on a regular basis, (4) maintaining natural areas of at least ¼ acre for which benefit to wildlife is an important concern, (5) maintaining plantings (shrubs, agricultural crops, etc.) for which benefit to wildlife is an important concern, and (6) visiting public parks within 1 mile of home for the purpose of observing, photographing, or feeding wildlife.

Secondary nonresidential

Enjoyment from seeing or hearing wildlife while on a trip or outing of at least 1 mile that is taken for another purpose, such as camping, driving for pleasure, or boating.

Secondary residential

Enjoyment from unplanned opportunities to see or hear wildlife while pursuing other activities around the home (e.g., enjoying birds while doing yardwork).

Some Highlights

A total of 93.2 million Americans 16 years of age and older participated in at least one of the four categories of nonconsumptive activity in 1980. An estimated 83.2 million participated in a primary activity. Participants in secondary activities totaled 88.3 million individuals. About 94 percent of all those who participated in a primary activity also took part in a secondary activity.

Close to 28.8 million Americans participated in primary nonresidential activities in 1980, representing nearly one in every five adults. Of all participants in primary activities, 35 percent took at least one trip for the primary purpose of observing, photographing, or feeding wildlife.

Participants in primary activities around the home numbered 79.7 million in 1980, or nearly one in every two individuals 16 years of age and older. Of these individuals, 70 percent observed wildlife around the home, 78 percent fed wild birds, and 16 percent photographed. In addition, 26 percent fed other kinds of wildlife, 13 percent maintained natural areas for the benefit of wildlife, 16 percent maintained plantings, and 17 percent visited public parks and/or natural areas near their homes primarily to observe, photograph, or feed wildlife.

Of the 88.3 million Americans who participated in secondary activities, 69.4 million, or 79 percent, reported enjoying wildlife on trips taken for some purpose other than observing, photographing, or feeding wildlife. About 80.5 million individuals, 47 percent of the adult population, indicated that they enjoyed unplanned opportunities to hear or see wildlife around the home.

A total of 377.4 million days were spent on trips to observe, photograph, or feed wildlife in 1980. Wildlife observation accounted for 374.1 million days, and wildlife photography and feeding accounted for 74.5 million and 128.5 million days, respectively. About 5 billion days were spent by Americans observing and/or photographing wildlife in residential settings.

Substantial numbers of young people aged 6 to 15 engage in nonconsumptive activities in addition to the 16 years old and older group that is the focus of this report. About 5.3 million youths, 15 percent of the 6 to 15 age group, participated in primary nonresidential activities. Roughly 9.0 million youths engaged in primary residential activities, 25 percent of the total. As with the older age group, activities in which wildlife was of secondary importance were reported by large numbers. Some 16.3 million youths enjoyed wildlife while on trips taken for another purpose (secondary nonresidential), 46 percent of the population 6 to 15 years old. About 21.8 million youths, or 62 percent, enjoyed wildlife around home while engaged in other activities (secondary residential).

Participants in nonconsumptive wildlife-associated recreation came from a wide range of socioeconomic groups. About 49 percent of women and 49 percent of men participated in at least one primary nonconsumptive activity. Roughly 53 percent of all Whites participated in at least one primary activity, and 26 percent of all Blacks and 28 percent of other racial groups took part in such activities. Participation in nonconsumptive activities by income category ranged from 60 percent of all those in the $20,000-$24,999 household income category to 37 percent of all those with annual incomes of less than $5,000. Participation rates for most income categories were around 50 percent.

Sportsmen represented a large percentage of all nonconsumptive users. Of those who engaged in at least one nonconsumptive activity, 37 percent also fished and/or hunted. With regard to specific nonconsumptive activities, sportsmen represented 42 percent of those who took trips primarily to observe wildlife and 34 percent of those who fed wild birds around the home.

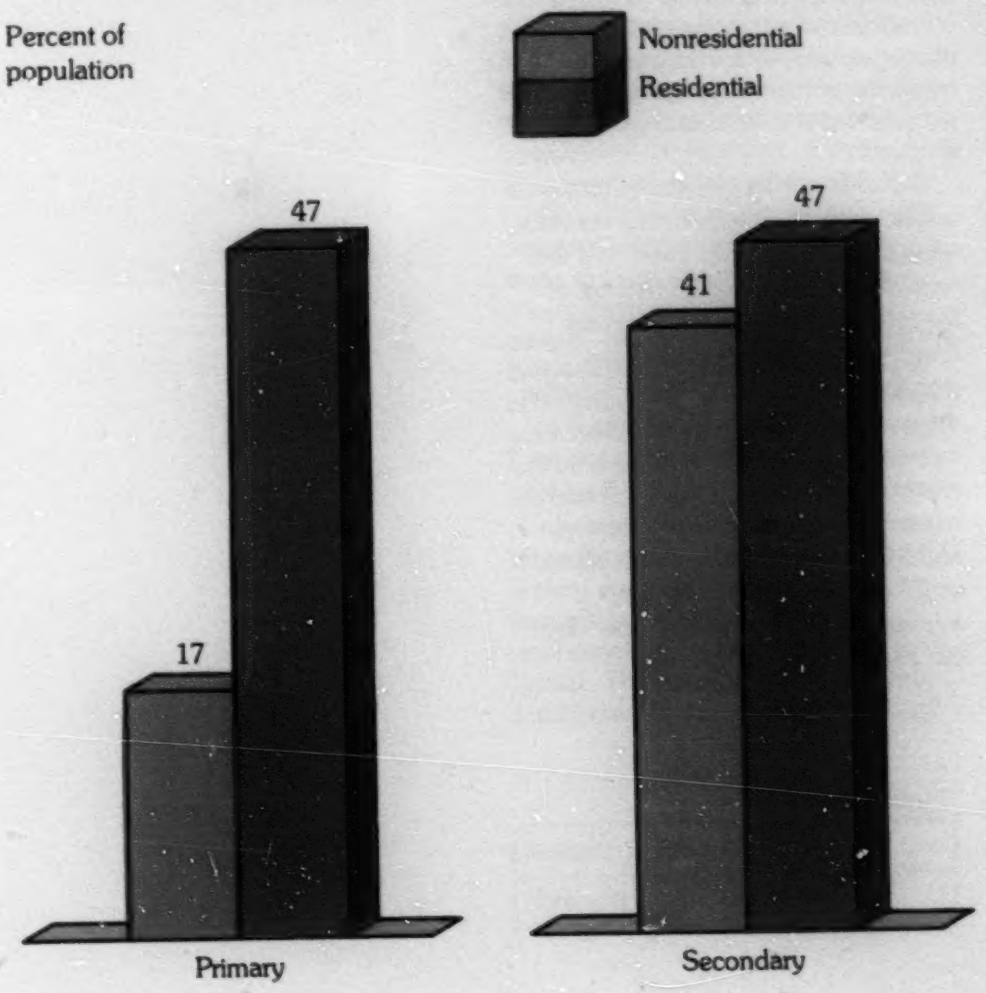
About 65 percent of all fishermen and hunters participated in at least one primary nonconsumptive activity in 1980. An estimated 46 percent of all sportsmen fed wild birds around their homes and roughly one-fourth took trips primarily to observe, photograph, or feed wildlife. This figure does not include trips for the purpose of scouting game or places to hunt.

Both game and nongame types of fish and wildlife were the focus of nonconsumptive activities. Roughly 60 percent of all wildlife observed, photographed, or fed on trips were nongame species in comparison to 40 percent that were fish and game species.

Expenditures for nonconsumptive wildlife-associated recreational activities totaled $14.7 billion in 1980. Of this total, $10.7 billion, or 73 percent of the total, was spent on equipment. If equipment purchases not used primarily for nonconsumptive activities are excluded, total expenditures are reduced to $6.6 billion and equipment expenditures to $2.6 billion. Travel-related expenditures (food, lodging, and transportation) were $4.0 billion, or 27 percent of the total. On average, they represent $11 per day per traveler or $139 per year.

Participation in Nonconsumptive Activities

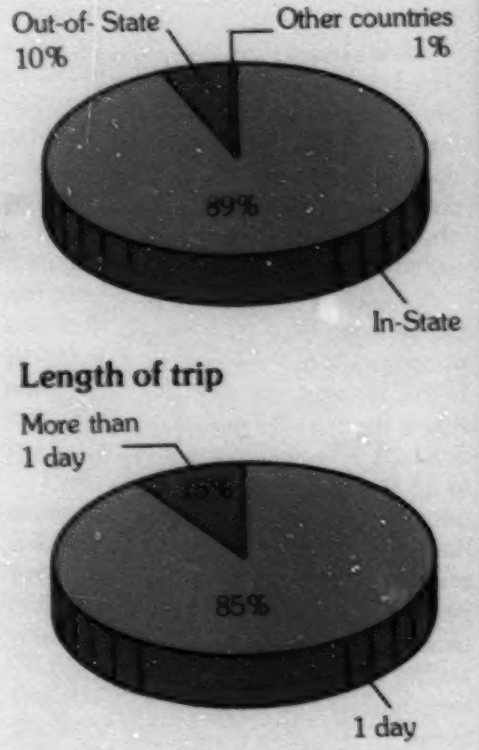
Some 93.2 million Americans 16 years old and older participated in nonconsumptive wildlife-associated activities in 1980. Of these, 28.8 million, or 17 percent of the population, took trips primarily to observe, photograph, or feed wildlife (primary nonresidential). About 79.7 million, or 47 percent of the population, showed an active interest in wildlife around the home (primary residential). Roughly 69.4 millions persons, or 41 percent of the population, reported enjoying wildlife on trips taken for another purpose (secondary nonresidential). Finally, 80.5 million, or 47 percent of the population, experienced unplanned opportunities to enjoy wildlife while engaged in other activities around the home (secondary residential).

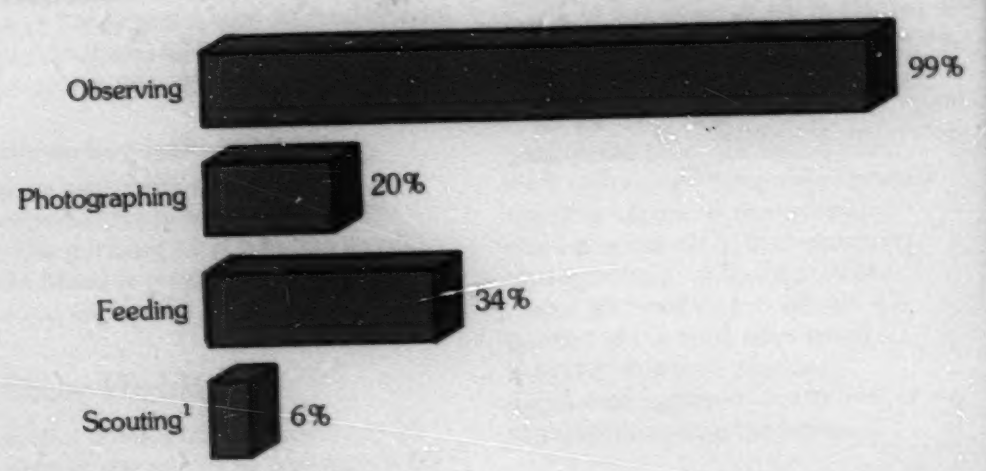


Primary Purpose Trips To Observe, Photograph, of Feed Wildlife

About 28.8 million Americans participated in primary nonresidential activities in 1980. This figure represents 17 percent of the adult population 16 years of age and older in the United States. Roughly 90 percent of those who took primary purpose trips in 1980 did so in their States of residence, 24 percent took trips to other States, and 4 percent took trips to other countries.

Participants observed wildlife on 99 percent of all days on these trips, photographed on 70 percent of the days, and fed wildlife on 34 percent. (The sum of the percentages exceeds 100 percent because more than one activity could occur on a given day.)



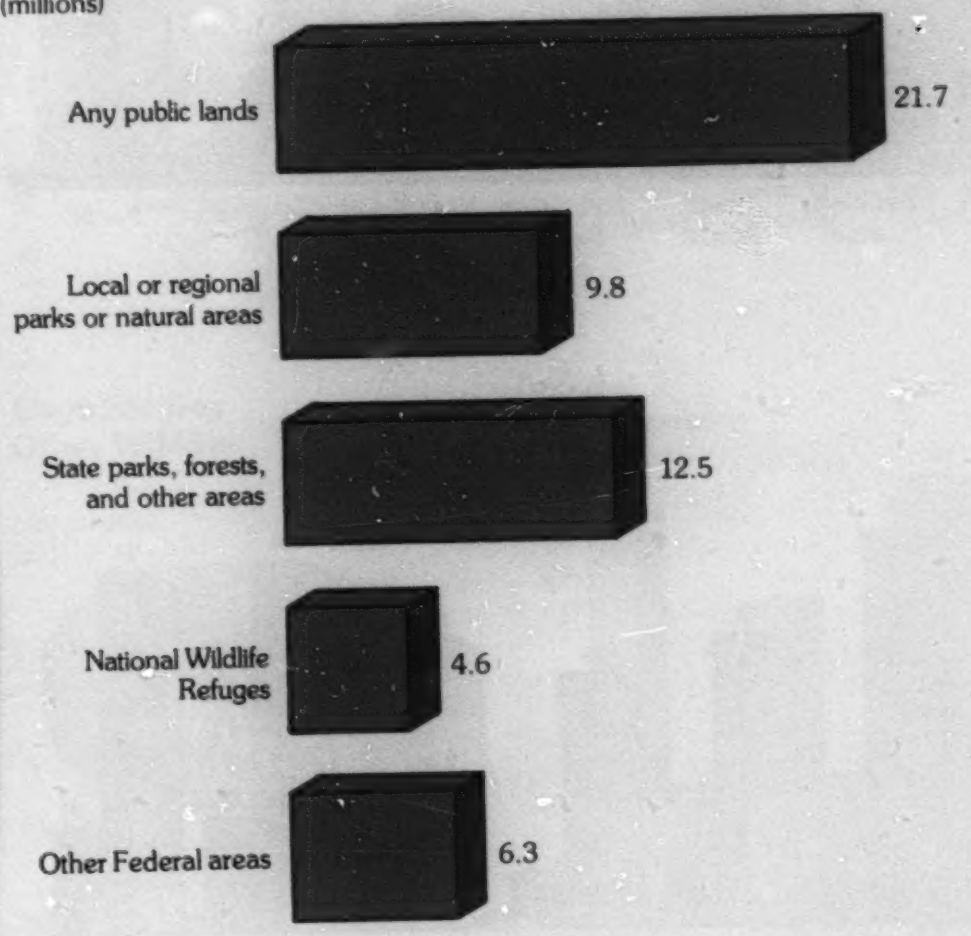


[1]Includes days spent in other countries.

Primary Nonresidential Areas Visited at Least Once

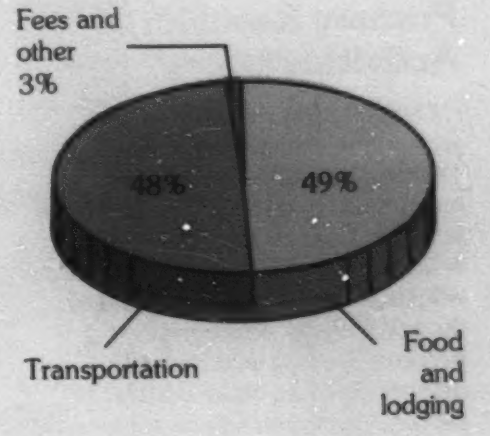
About 75 percent of all those who took trips in 1980 indicated that they had visited public lands at least once. Of those who visited public areas, 44 percent had gone to State parks or forests. Local or regional parks or natural areas were visited by 34 percent of those who took trips. National Wildlife Refuges were visited by 16 percent. Other Federal lands were used by 22 percent of those who took trips to observe, photograph, or feed wildlife.

Participants
(millions)



Expenditures on Primary-Purpose Trips

Of the 28.8 million individuals who took trips primarily to observe, photograph, or feed wildlife, 90 percent reported some travel-related expenditures. About $4.0 billion were spent for travel in 1980. An estimated $1.9 billion, 48 percent of the total, was spent for transportation, and $2.0 billion (49 percent) was spent for food and lodging. Fees (3 percent) accounted for the remainder of these travel-related costs.



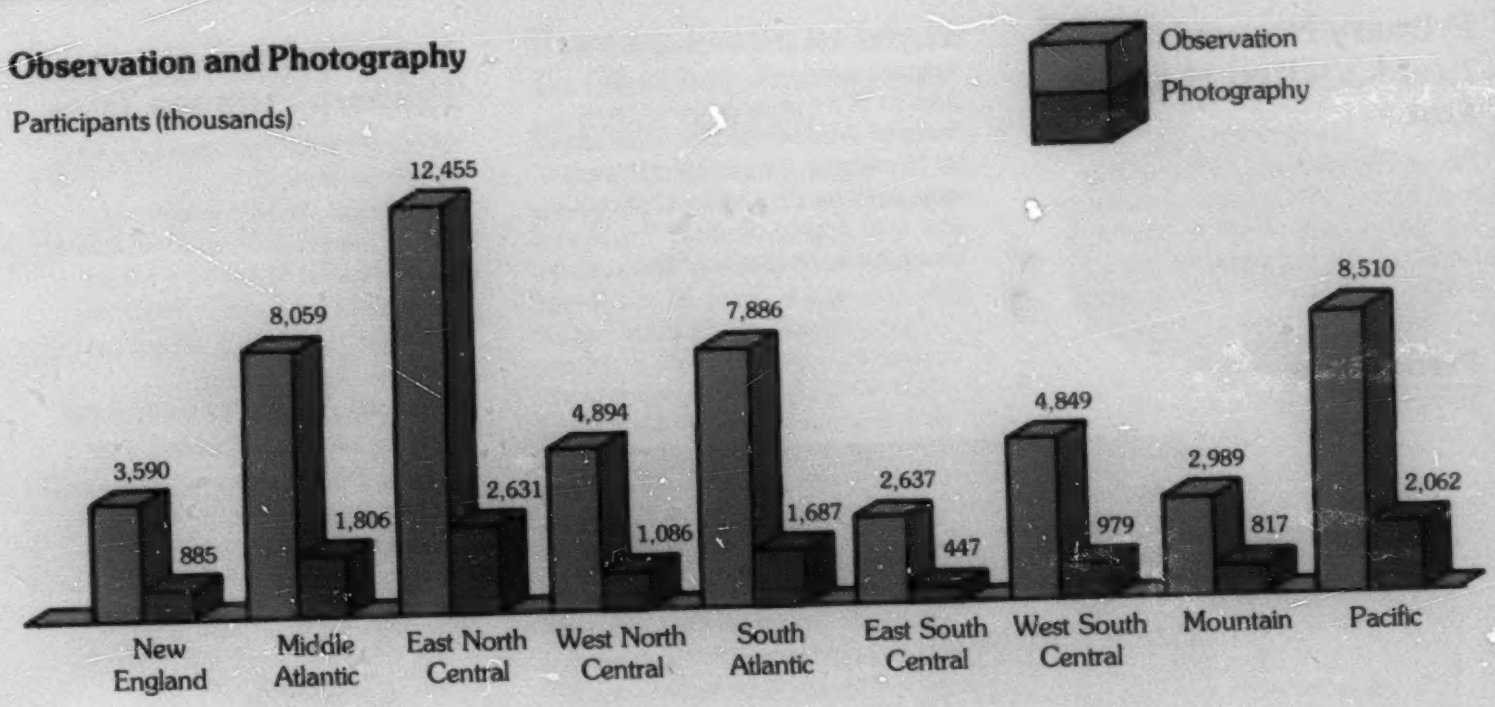
Primary Residential Activities

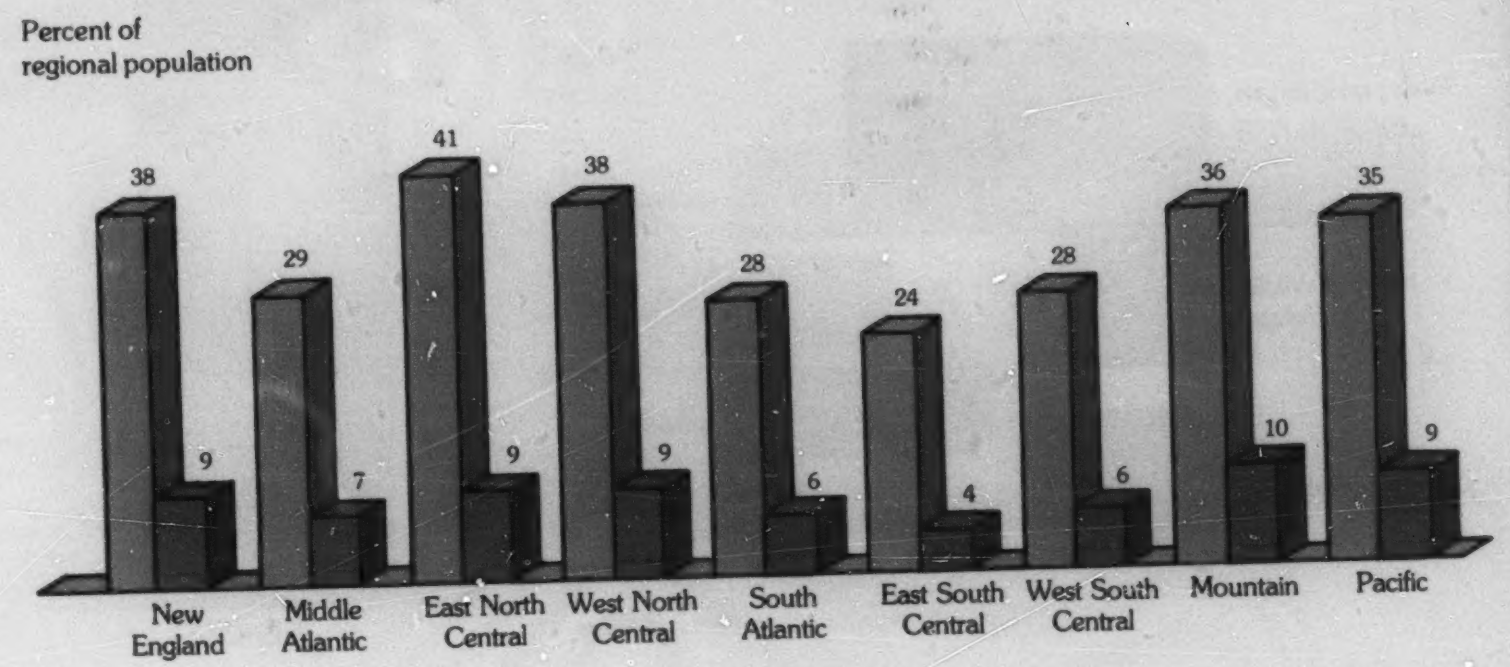
Participants in primary activities around the home numbered 79.7 million, or roughly one of every two individuals 16 years of age and older in 1980. The residential activities in which individuals engaged included wildlife observation (33 percent of the population), photography (7 percent), feeding wild birds (37 percent), feeding other wildlife (12 percent), maintaining natural areas of ¼ acre or more (6 percent), maintaining food or cover plantings (7 percent) to benefit wildlife, and visiting public parks and natural areas within 1 mile of home (8 percent).

Roughly one-third of the U.S. population, 62.5 million, fed wild birds (once per week for at least 1 month) in 1980. Individuals fed birds for an average of 6 months during the year.

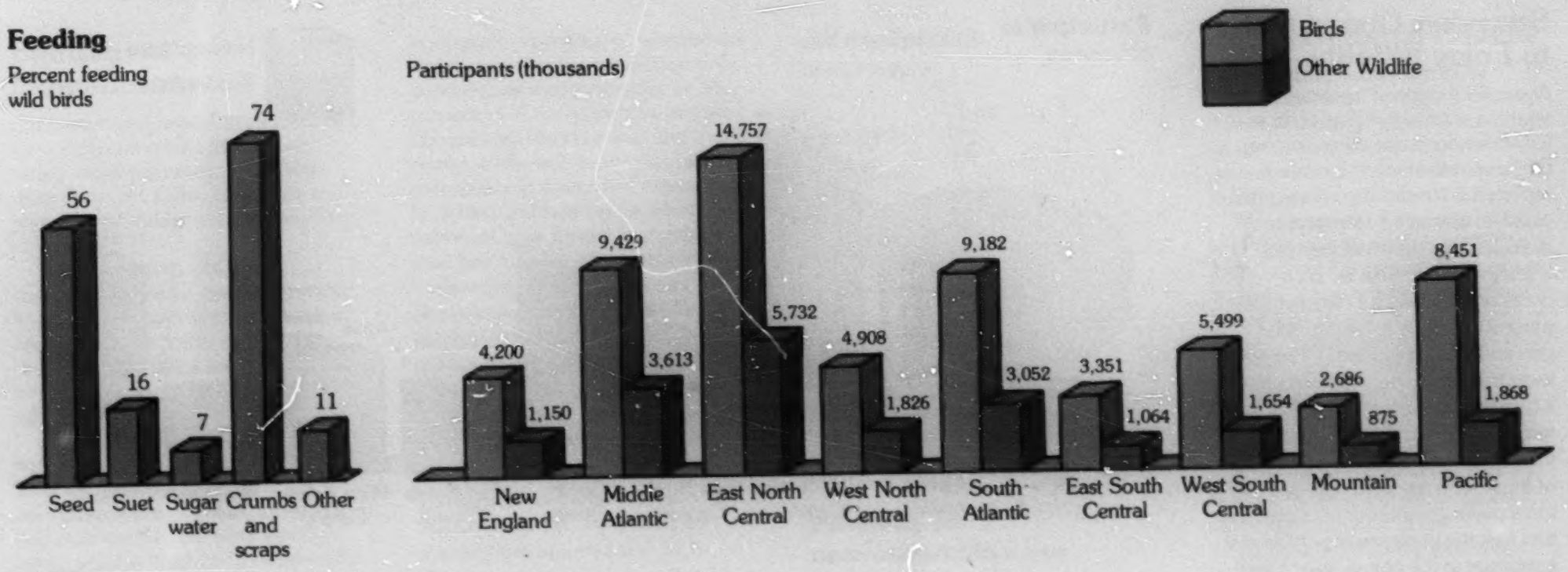
About 43 percent of all birdfeeders reported maintaining regular feeders. Seed was used by 56 percent of those who fed birds in contrast to 74 percent who reported that they fed birds with crumbs and table scraps. An additional 16 percent fed with suet while 7 percent put out sugar water for hummingbirds.

Observation and Photography

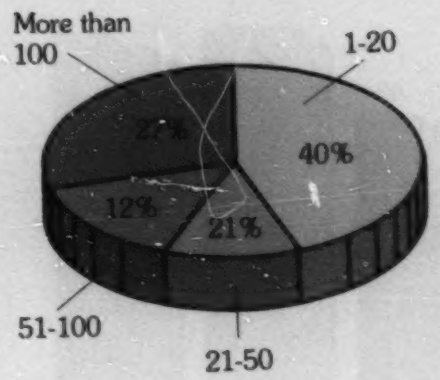


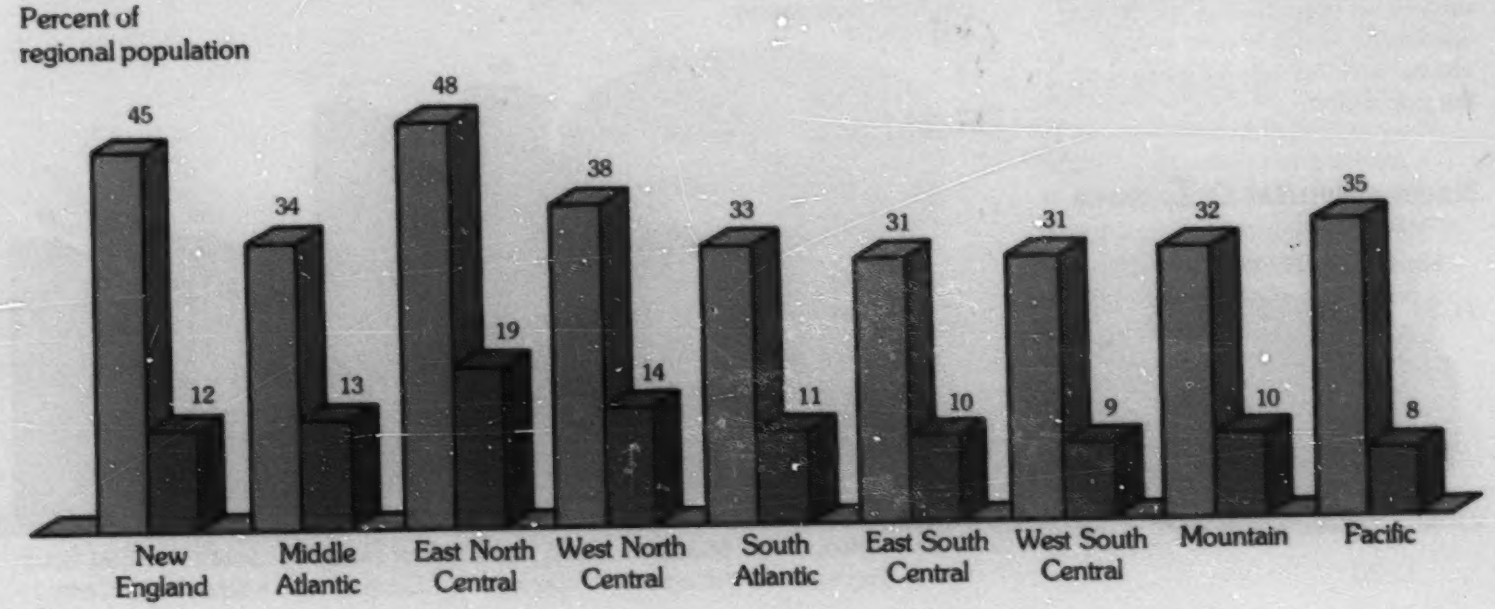


Feeding



Days Feeding Other Wildlife



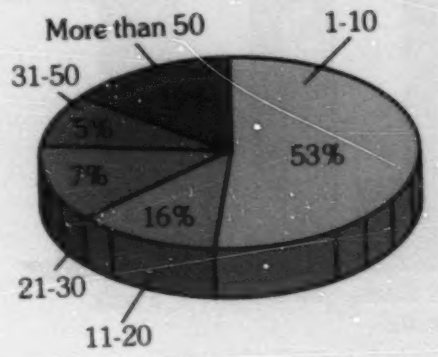


Secondary Opportunities to Enjoy Wildlife

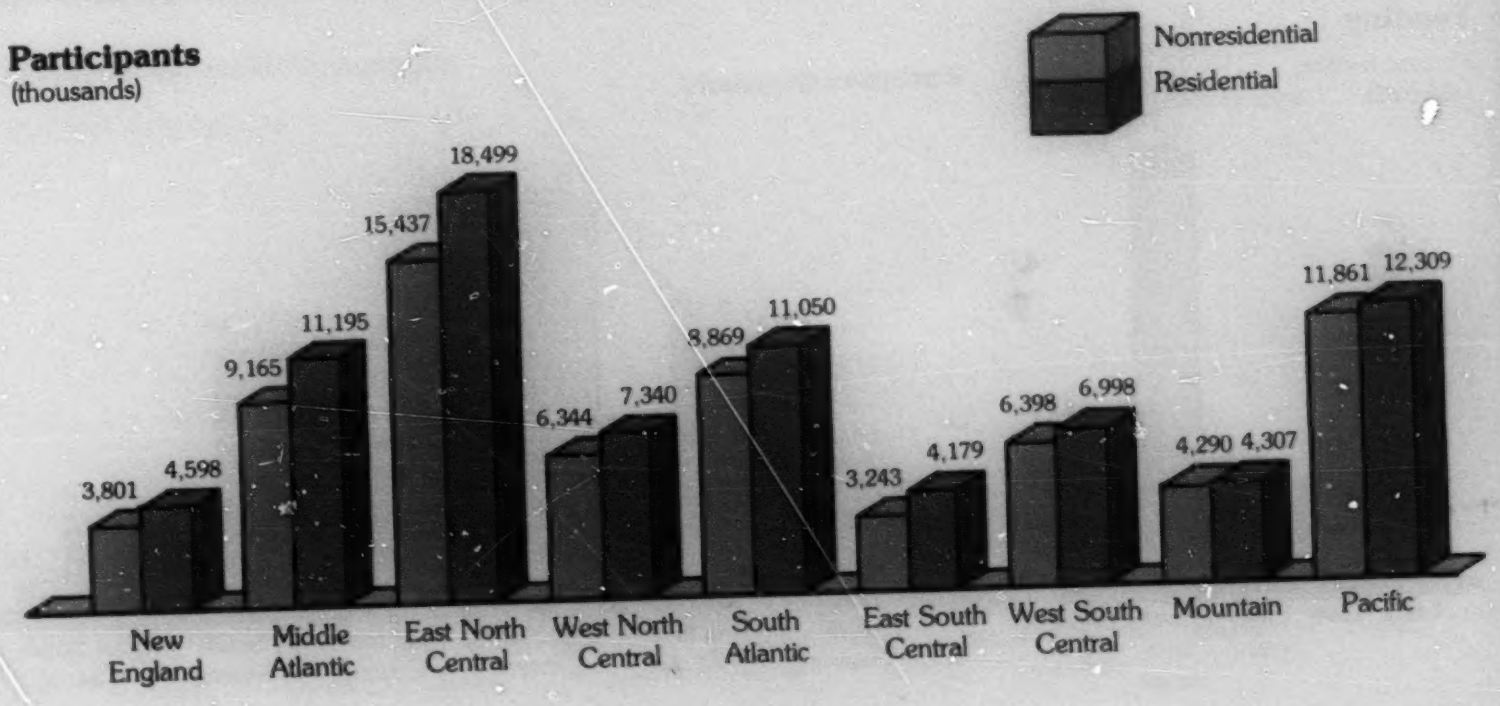
About 69.4 million Americans reported enjoying wildlife while on trips taken for some other purpose. Of these individuals, 53 percent reported 1-10 such trips during the year. An estimated 19 percent indicated that they had enjoyed wildlife on more than 50 such occasions. Driving for pleasure (68 percent), walking or hiking, (42 percent), and picnicking (39 percent) were frequently cited activities during which the opportunity to see or hear wildlife added to the enjoyment of the experience. Roughly 60 percent of those who reported participation in secondary nonresidential activities said that the presence of wildlife was important to the enjoyment of their recreational activities.

About 80 million people enjoyed unplanned opportunities (secondary residential) to see or hear wildlife around their homes, 47 percent of the population.

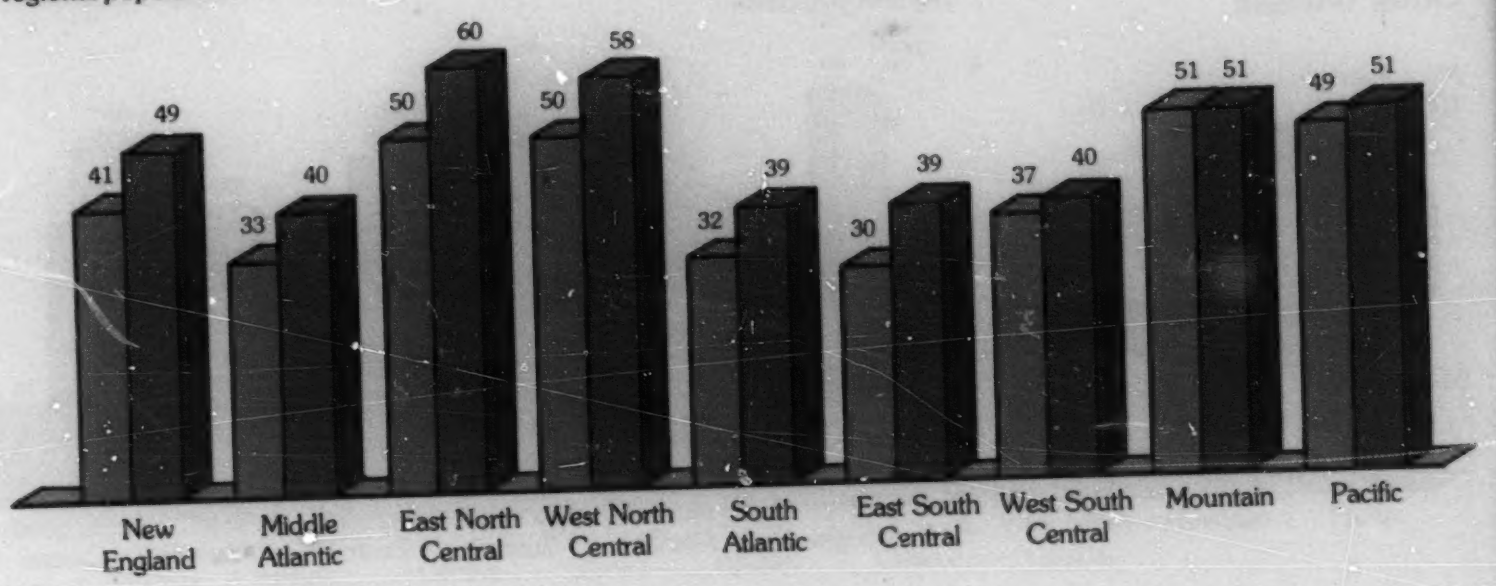
Nonresidential Occasions



Participants
(thousands)



Percent of regional population



Equipment Expenditures

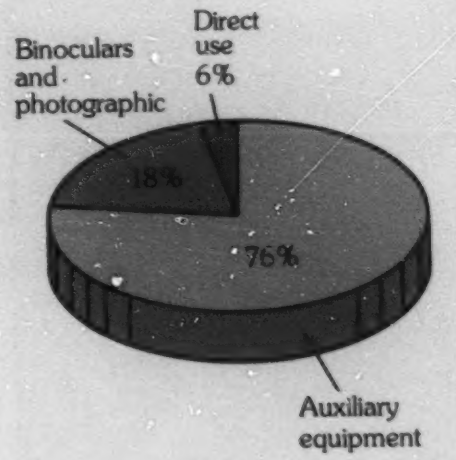
Equipment and related expenditures for nonconsumptive activities were sorted into three categories. These were direct-use items, binoculars and photographic equipment, and auxiliary equipment.

Direct-use items included equipment for which use was restricted to nonconsumptive wildlife recreation because of their nature (field guides, birdseed, birdfeeders, etc.). Spending for direct-use items totaled $636 million.

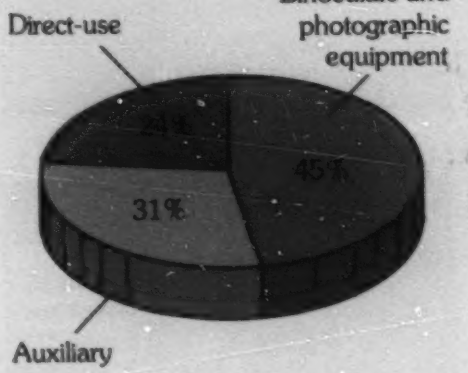
Because many of the other items covered by the survey could also be used for purposes other than nonconsumptive activities, those who had purchased these items were asked whether their use was primarily for nonconsumptive activities. Two sets of estimates are shown here. The "all equipment" category shows total equipment expenditures, whereas the "primary-use" estimates include only expenditures made primarily for the purpose of nonconsumptive activities. The primary-use estimates, the smaller of the two in all cases, are comparable to equipment expenditures for fishing and hunting for which responses were limited to purchases used primarily for fishing and hunting.

Spending for binoculars and photographic equipment was $2.0 billion in the all expenditures tabulation and $1.2 billion when restricted to primary use. Related or auxiliary equipment spending was $8.1 billion for all expenditures and $805 million for primary uses. Total equipment expenditures amounted to $10.7 billion when everything is included and $2.6 billion when limited to spending primarily for nonconsumptive activities.

All equipment
($10.7 billion)



Primarily for nonconsumptive use
($2.6 billion)



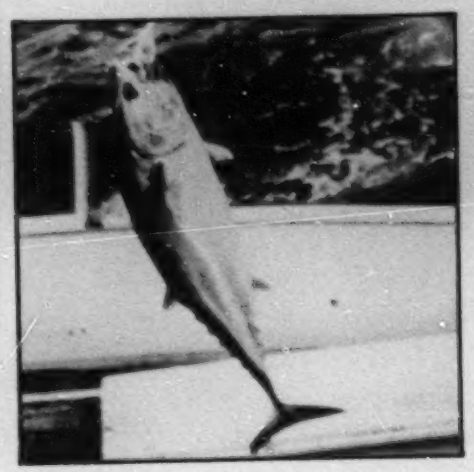
Socioeconomic Profiles

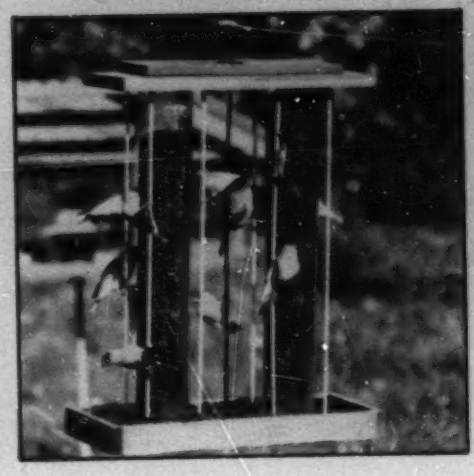
Participants in nonconsumptive wildlife-associated recreation came from a wide range of socioeconomic groups. Those who participated in primary nonresidential activities warrant special attention.

Men comprised 52 percent of those who took trips to observe wildlife in 1980. About 58 percent of those who engaged in this activity were between the ages of 16 and 34. One-fourth of the U.S. population aged 25-34 took trips primarily to observe, photograph, or feed wildlife. Participation rates among older age groups were 18 percent of those aged 35-44, 15 percent of those 45-54, and 9 percent of the population older than 55 years of age.

An estimated 24 percent of the U.S. population with an annual income of $30,000-$39,999 participated in wildlife-oriented trips and represented 11 percent of those who participated in the activity. About 55 percent of this activity group consisted of individuals with household incomes of between $10,000 and $30,000. About 38 percent of those who participated in trips primarily to observe, photograph, or feed wildlife had a total annual household income of less than $20,000.

Statistical Tables





Fishing and Hunting

Table 1. Participants in Fishing and Hunting, by Age: 1980

(Numbers in thousands)

Activity	16 years old and older			12 years old and older			9 years old and older			6 years old and older		
	Total	Percent of sportsmen	Percent of population	Total	Percent of sportsmen	Percent of population	Total	Percent of sportsmen	Percent of population	Total	Percent of sportsmen	Percent of population
Either fished or hunted	46.713	100	27	52.660	100	29	56.669	100	29	59.355	100	29
Fished only	29.268	63	17	34.482	65	19	38.046	67	19	40.593	68	20
Hunted only	4.654	10	3	5.034	10	3	5.097	9	3	5.120	9	2
Fished and hunted	12.791	27	8	13.144	25	7	13.525	24	7	13.642	23	7

Table 2. Fishermen, Trips, and Days and Hours of Participation, by Type of Fishing: 1980

(U.S. population 16 years old and older. Numbers in thousands)

Type of fishing	Participants							
	Total		In State of residence		In other States		In other countries	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
All fishing	42.059	100	38.234	100	10.066	100	1.437	100
Freshwater	36.378	86	33.201	87	7.396	73	967	67
Great Lakes	3.016	7	2.598	7	505	5	(X)	(X)
Other	35.308	84	32.095	84	7.105	71	[1]967	67
Saltwater	12.344	29	9.256	24	3.577	36	506	35

	Trips							
	Total		1 day		2 or more days		Primary pupose[2]	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
All fishing	751.197	100	639.462	85	111.736	15	645.642	86
Freshwater	620.531	100	532.359	86	88.172	14	543.772	88
Great Lakes	35.720	100	29.918	84	5.802	16	30.990	87
Other	584.811	100	502.441	86	82.370	14	512.782	88
Saltwater	130.667	100	107.103	82	23.564	18	101.870	78

	Days of participation									
	Total		In State of residence		In other States		In other countries		Average per fisherman	Average hours per day
	Number	Percent	Number	Percent	Number	Percent	Number	Percent		
All fishing	857.566	100	761.378	89	87.561	10	8.627	1	20	5
Freshwater	710.572	100	638.343	90	66.276	9	5.948	1	20	5
Great Lakes	40.533	100	37.272	92	3.261	8	(X)	(X)	13	5
Other	674.376	100	604.242	90	64.187	10	5.947	1	19	5
Saltwater	147.007	100	123.064	84	21.271	14	2.673	2	12	6

Note: Detail does not add to total because of multiple responses.
X Not applicable.
[1] Includes Great Lakes fishing.
[2] Trips taken for the primary purpose of fishing.

Table 3. Freshwater Fishermen and Days of Participation, by Type of Fish Sought: 1980

(U.S. population 16 years old and older. Numbers in thousands. Excludes Great Lakes fishing.)

Type of fishing	Total		In State of residence		In other States		In other countries		Average per fisherman
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	
PARTICIPANTS									
Total	35.308	100	32.095	91	7.105	20	967	3	(X)
Bass	18.259	100	16.409	90	3.180	17	292	2	(X)
Panfish	18.877	100	17.070	90	3.015	16	189	1	(X)
Catfish	13.339	100	12.322	92	1.811	14	41	(Z)	(X)
Walleye and sauger	4.418	100	3.309	75	1.007	23	509	12	
Northern pike, pickerel, and muskie	4.458	100	3.297	74	944	21	522	12	(X)
Trout	10.745	100	9.114	85	2.137	20	223	2	(X)
Salmon and steelhead	1.323	100	1.099	83	214	16	43	3	(X)
Striped bass	1.846	100	1.604	87	308	17	...	...	(X)
All other freshwater fish	3.294	100	2.829	86	511	16	68	2	(X)
Anything	5.647	100	4.955	88	944	17	62	1	(X)
DAYS OF PARTICIPATION									
Total	674.376	100	604.242	90	64.187	10	5.947	1	19
Bass	333.204	100	301.224	90	30.002	9	1.978	1	18
Panfish	333.266	100	303.126	91	28.966	9	1.174	(Z)	18
Catfish	236.737	100	217.729	92	18.670	8	338	(Z)	18
Walleye and sauger	67.918	100	54.567	80	10.115	15	3.236	5	15
Northern pike, pickerel, and muskie	67.071	100	55.263	82	8.718	13	3.090	5	15
Trout	144.157	100	126.498	88	16.526	11	1.134	1	13
Salmon and steelhead	17.978	100	16.075	89	1.686	9	217	1	14
Striped bass	36.999	100	33.592	91	3.281	9	107	(Z)	20
All other freshwater fish	61.992	100	56.975	92	4.667	8	350	1	19
Anything	78.405	100	72.379	92	5.696	7	331	(Z)	14

Note: Detail does not add to total because of multiple responses.
* Estimate based on a small sample size.
. . . Sample size too small to report data reliably.
X Not applicable.
Z Less than .5 percent.

Table 4. Great Lakes Fishermen and Days of Participation, by Type of Fish Sought: 1980

(U.S. population 16 years old and older. Numbers in thousands)

Type of fishing	Total		In State of residence		In other States		Average per fisherman
	Number	Percent	Number	Percent	Number	Percent	
PARTICIPANTS							
All Great Lakes fishing	3.016	100	2.598	86	505	17	(X)
Bass	719	100	602	84	127	18	(X)
Walleye and sauger	792	100	725	92	69	9	(X)
Northern pike	393	100	282	72	115	29	(X)
Pickerel, and muskie	172	100	141	82	*31	18	(X)
Panfish	507	100	438	87	80	16	(X)
Perch	1.420	100	1.303	92	131	9	(X)
Catfish	471	100	400	85	76	16	(X)
Salmon and steelhead	964	100	787	82	193	20	(X)
Lake trout	715	100	585	82	144	20	(X)
Other trout	448	100	376	84	81	18	(X)
White bass	202	100	178	88	*25	12	(X)
Sheepshead	215	100	179	83	*38	18	(X)
Smelt	337	100	315	93	*23	7	(X)
Anything	379	100	320	84	69	18	(X)
Other	130	100	90	69	*40	31	(X)
DAYS OF PARTICIPATION							
All Great Lakes fishing	40.533	100	37.272	92	3.261	8	13
Bass	9,957	100	9,262	93	695	7	14
Walleye and sauger	11.038	100	10.628	96	410	4	14
Northern pike	4.315	100	3.555	82	760	18	11
Pickerel and muskie	2.058	100	1.847	90	*211	10	12
Panfish	8.512	100	7.506	88	1.005	12	17
Perch	18.634	100	17.394	93	1.240	7	13
Catfish	7.039	100	6.602	94	436	6	15
Salmon and steelhead	9.841	100	8.988	91	853	9	10
Lake trout	6.638	100	5.910	89	728	11	9
Other trout	4.533	100	4.172	92	362	8	10
White bass	3.873	100	3.740	97	*133	3	19
Sheepshead	4.126	100	3.962	96	*164	4	19
Smelt	1.804	100	1.735	96	*69	4	5
Anything	4.231	100	3.897	92	334	8	11
Other	1.232	100	1.105	90	*128	10	9

Note: Detail does not add to total because of multiple responses.
* Estimate based on a small sample size.
X Not applicable.

Table 5. Fishing for Selected Anadromous Species and Days of Participation: 1980

(U.S. population 16 years old and older. Numbers in thousands.)

Type of fish	Total		In State of residence		In other States		In other countries		Average per fisherman
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	
PARTICIPANTS									
All saltwater fishing	12.344	100	9.256	75	3.577	29	506	4	(X)
Salmon	1.095	100	848	77	264	24	*36	3	(X)
Striped bass	2.510	100	1.997	80	645	26	100	4	(X)
DAYS OF PARTICIPATION									
All saltwater fishing	147.007	100	123.063	84	21.270	14	2.673	2	12
Salmon	7.578	100	6.439	85	994	13	*145	2	7
Striped bass	24.836	100	20.575	83	3.806	15	455	2	10

Note: Detail does not add to total because of multiple responses.
* Estimate based on a small sample size.
. . . Sample size too small to report data reliably.

Table 6. Saltwater Fishermen: 1980

(U.S. population 16 years old and older. Numbers in thousands)

Type of saltwater fishing	Total		In State of residence		In other States		In other countries	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total	12.344	100	9.256	75	3.577	29	506	4
Deep sea	4.608	100	3.157	69	1.509	33	260	6
Surf and shore	6.737	100	5.116	76	1.822	27	224	3
Sounds, bays, tidal inlets and streams	5.325	100	4.152	78	1.349	25	77	1

Note: Detail does not add to total because of multiple responses.

Table 7. Hunters, Trips, and Days and Hours of Participation, by Type of Hunting: 1980

(U.S. population 16 years old and older. Numbers in thousands)

Type of hunting	Participants							
	Total		In State of residence		In other States		In other countries	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
All hunting	17,444	100	16,582	95	2,140	12	102	1
Big game	11,806	100	11,128	94	1,227	10	45	(Z)
Small game	12,362	100	11,739	95	1,156	9	50	(Z)
Migratory bird	5,311	100	5,006	94	470	9	40	1
Other animals	2,642	100	2,506	95	211	8	. . .	. . .

	Trips							
	Total		1 day		2 or more days		Primary purpose[1]	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
All hunting	313,953	100	281,133	90	32,820	10	269,943	86
Big game	91,358	100	76,466	84	14,892	16	83,164	91
Small game	145,167	100	132,313	91	12,854	9	124,003	85
Migratory bird	39,960	100	36,564	92	3,396	8	33,035	83
Other animals	37,468	100	35,790	96	1,678	4	29,741	79

	Days of participation									
	Total		In State of residence		In other States		In other countries		Average per hunter	Average hours per day
	Number	Percent	Number	Percent	Number	Percent	Number	Percent		
All hunting	330,168	100	308,708	94	20,808	6	651	(Z)	19	5
Big game	112,788	100	103,678	92	8,929	8	181	(Z)	10	7
Small game	151,246	100	142,176	94	8,758	6	312	(Z)	12	4
Migratory bird	42,910	100	39,763	93	2,938	7	209	(Z)	8	5
Other animals	38,431	100	36,331	95	2,100	5	. . .	. . .	15	4

Note: Detail does not add to total because of multiple responses.
. . . Sample size too small to report data reliably.
Z Less than .5 percent.
[1] Trips taken for the primary purpose of hunting.

Table 8. Big Game Hunters and Days of Participation, by Type of Game: 1980

(U.S. population 16 years old and older. Numbers in thousands)

Type of game	Total		In State of residence		In other States		In other countries		Average per hunter
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	
PARTICIPANTS									
All big game	11.806	100	11.128	94	1.227	10	45	(Z)	(X)
Deer	11.400	100	10.805	95	1.060	9	*17	(Z)	(X)
Elk	760	100	608	80	156	21	...	...	(X)
Antelope	120	100	104	87	*16	13	...	...	(X)
Moose	50	100	42	84	...	...	...	...	(X)
Bear	561	100	461	82	96	17	...	...	(X)
Wild turkey	1.471	100	1.348	92	160	11	...	...	(X)
Other	287	100	255	89	31	11	...	...	(X)
DAYS OF PARTICIPATION									
All big game	112.788	100	103.678	92	8.929	8	181	(Z)	10
Deer	102.496	100	94.885	93	7.550	7	*61	(Z)	9
Elk	4.984	100	3.880	78	1.103	22	...	...	7
Antelope	485	100	360	74	*127	26	...	...	4
Moose	351	100	270	77	...	...	...	...	7
Bear	3.932	100	3.166	81	715	18	...	...	7
Wild turkey	9.875	100	8.927	90	919	9	...	...	7
Other	2.456	100	2.276	93	152	6	...	...	9

Note: Detail does not add to total because of multiple responses.
* Estimate based on a small sample size.
... Sample size too small to report data reliably.
Z Less than .5 percent.
X Not applicable.

Table 9. Small Game Hunters and Days of Participation, by Type of Game: 1980

(U.S. population 16 years old and older. Numbers in thousands)

Type of game	Total		In State of residence		In other States		In other countries		Average per hunter
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	
PARTICIPANTS									
All small game	12,362	100	11,739	95	1,156	9	50	(Z)	(X)
Rabbits and hares	7,581	100	7,248	96	510	7	*12	(Z)	(X)
Quail	3,671	100	3,422	93	367	10	*21	1	(X)
Grouse	2,309	100	2,210	96	163	7	. . .	. . .	(X)
Hungarian and chukar partridge	659	100	614	93	47	7	. . .	. . .	(X)
Squirrel	6,329	100	6,064	96	393	6	. . .	. . .	(X)
Pheasant	4,214	100	3,903	93	406	10	*17	(Z)	(X)
Other	211	100	194	92	*18	9	. . .	. . .	(X)
DAYS OF PARTICIPATION									
All small game	151,246	100	142,176	94	8,758	6	312	(Z)	12
Rabbits and hares	78,794	100	74,445	94	4,279	5	*70	(Z)	10
Quail	36,989	100	34,199	92	2,579	7	*212	1	10
Grouse	21,440	100	20,201	94	1,176	5	. . .	. . .	9
Hungarian and chukar partridge	6,209	100	5,762	93	433	7	. . .	. . .	9
Squirrel	65,962	100	62,728	95	3,234	5	. . .	. . .	10
Pheasant	34,655	100	32,030	92	2,530	7	*95	(Z)	8
Other	2,686	100	2,627	98	*59	2	. . .	. . .	13

Note: Detail does not add to total because of multiple responses.
* Estimate based on a small sample size.
. . . Sample size too small to report data reliably.
Z Less than .5 percent.
X Not applicable.

Table 10. Migratory Bird Hunters and Days of Participation, by Type of Game: 1980

(U.S. population 16 years old and older. Numbers in thousands)

Type of game	Total		In State of residence		In other States		In other countries		Average per hunter
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	
PARTICIPANTS									
All migratory bird hunting	5,311	100	5,006	94	470	9	40	1	(X)
Geese	1,397	100	1,296	93	134	10	...	...	(X)
Ducks	2,736	100	2,526	92	277	10	*27	1	(X)
Coots, rails and gallinules	134	100	128	96	...	...	...	...	(X)
Woodcock	491	100	469	95	*22	5	...	...	(X)
Doves	3,026	100	2,890	96	199	7	...	...	(X)
Band-tailed pigeon	86	100	85	100	...	...	...	...	(X)
Other	71	100	63	89	...	...	...	...	(X)
DAYS OF PARTICIPATION									
All migratory bird hunting	42,910	100	39,763	93	2,938	7	209	(Z)	8
Geese	11,572	100	10,815	93	705	6	...	...	8
Ducks	22,202	100	20,366	92	1,685	8	*150	1	8
Coots, rails and gallinules	1,198	100	1,120	93	...	...	...	...	9
Woodcock	3,754	100	3,641	97	*90	2	...	...	8
Doves	18,775	100	17,683	94	1,022	5	...	...	6
Band-tailed pigeon	784	100	655	83	...	...	...	...	9
Other	542	100	464	86	...	...	...	...	8

Note: Detail does not add to total because of multiple responses.
* Estimate based on a small sample size.
... Sample size too small to report data reliably.
Z Less than .5 percent.
X Not applicable.

Table 11. Hunters of Other Animals and Days of Participation, by Type of Game: 1980

(U.S. population 16 years old and older. Numbers in thousands)

Type of game	Total		In State of residence		In other States		In other countries		Average per hunter
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	
PARTICIPANTS									
All other hunting	2.642	100	2.506	95	211	8	...	...	(X)
Crows	481	100	471	98	*15	3	...	...	(X)
Woodchuck	702	100	669	95	49	7	...	...	(X)
Raccoon	1.103	100	1.069	97	78	7	...	...	(X)
Fox	536	100	519	97	28	5	...	...	(X)
Coyote	655	100	598	91	70	11	...	...	(X)
Other	311	100	291	93	*25	8	...	...	(X)
DAYS OF PARTICIPATION									
All other hunting	38.431	100	36.331	95	2.100	5	...	...	15
Crows	4.530	100	4.430	98	*100	2	...	...	9
Woodchuck	10.443	100	9.977	96	466	4	...	...	15
Raccoon	18.398	100	17.452	95	947	5	...	...	17
Fox	6.032	100	5.746	95	286	5	...	...	11
Coyote	7.610	100	7.028	92	581	8	...	...	12
Other	4.703	100	4.415	94	*289	6	...	...	15

Note: Detail does not add to total because of multiple responses.
* Estimate based on a small sample size.
... Sample size too small to report data reliably.
X Not applicable.

Table 12. Selected Characteristics of Fishermen and Hunters: 1980

(U.S. population 16 years old and older. Numbers in thousands)

Characteristic	U.S. population		Fished or hunted			Fished only		
	Number	Percent	Number	Percent of population	Percent of sportsmen	Number	Percent of population	Percent of fishermen
Total persons	169,942	100	46,713	27	100	29,268	17	100
Population density of residence:								
Big cities	22,968	14	3,551	15	8	2,668	12	9
Small cities	71,041	42	17,028	24	36	12,454	18	43
Towns and rural areas	75,934	45	26,133	34	56	14,146	19	48
Census geographic division:								
New England	9,362	6	1,900	20	4	1,318	14	5
Middle Atlantic	27,867	16	5,044	18	11	2,946	11	10
East North Central	30,791	18	8,713	28	19	5,580	18	19
West North Central	12,774	8	4,718	37	10	2,704	21	9
South Atlantic	28,066	17	7,902	28	17	5,359	19	18
East South Central	10,792	6	3,651	34	8	1,992	18	7
West South Central	17,550	10	5,800	33	12	3,251	19	11
Mountain	8,415	5	2,808	33	6	1,515	18	5
Pacific	24,326	14	6,177	25	13	4,603	19	16
Sex and age group:								
Both sexes, total	169,942	100	46,713	27	100	29,268	17	100
16-17 years	8,612	5	2,761	32	6	1,473	17	5
18-24 years	28,546	17	8,627	30	18	4,758	17	16
25-34 years	37,742	22	13,022	35	28	8,105	21	28
35-44 years	26,117	15	8,413	32	18	5,285	20	18
45-54 years	22,555	13	5,981	27	13	4,036	18	14
55-64 years	21,723	13	4,683	22	10	3,243	15	11
65 years and older	24,648	15	3,226	13	7	2,369	10	8
Male, total	80,753	48	33,243	41	71	17,243	21	59
16-17 years	4,442	3	2,209	50	5	989	22	3
18-24 years	13,916	8	5,939	43	13	2,490	18	9
25-34 years	18,527	11	8,986	49	19	4,504	24	15
35-44 years	12,750	8	6,051	47	13	3,188	25	11
45-54 years	10,877	6	4,249	39	9	2,454	23	8
55-64 years	10,145	6	3,419	34	7	2,050	20	7
65 years and older	10,095	6	2,389	24	5	1,568	16	5
Female, total	89,190	52	13,469	15	29	12,025	13	41
16-17 years	4,169	2	552	13	1	484	12	2
18-24 years	14,630	9	2,689	18	6	2,267	15	8
25-34 years	19,215	11	4,036	21	9	3,600	19	12
35-44 years	13,367	8	2,362	18	5	2,097	16	7
45-54 years	11,678	7	1,731	15	4	1,583	14	5
55-64 years	11,577	7	1,264	11	3	1,193	10	4
65 years and older	14,553	9	836	6	2	801	6	3
Race:								
White	146,999	86	43,161	29	92	26,520	18	91
Black	18,175	11	2,709	15	6	2,098	12	7
All others	4,768	3	843	18	2	651	14	2

(See footnotes at end of table.)

Table 12. Selected Characteristics of Fishermen and Hunters: 1980 *(Continued)*

(U.S. population 16 years old and older. Numbers in thousands)

Characteristic	U.S. population		Fished or hunted			Fished only		
	Number	Percent	Number	Percent of population	Percent of sportsmen	Number	Percent of population	Percent of fishermen
Annual household income:								
Under $5,000	12,997	8	2,177	17	5	1,480	11	5
$5,000-$9,999	22,876	13	4,883	21	10	3,161	14	11
$10,000-$14,999	21,210	12	6,133	29	13	3,799	18	13
$15,000-$19,999	19,310	11	6,116	32	13	3,606	19	12
$20,000-$24,999	21,966	13	7,754	35	17	4,802	22	16
$25,000-$29,999	16,379	10	5,848	36	13	3,652	22	12
$30,000-$39,999	13,764	8	4,944	36	11	3,293	24	11
$40,000-$49,999	5,664	3	1,630	29	3	972	17	3
$50,000 or more	5,854	3	1,691	29	4	1,044	18	4
Not reported	29,923	18	5,536	19	12	3,458	12	12
Education								
None	1,452	1	151	10	(Z)	101	7	(Z)
1-7 years	12,453	7	2,345	19	5	1,524	12	5
8 years	11,401	7	2,499	22	5	1,571	14	5
9-11 years	28,555	17	8,570	30	18	5,076	18	17
12 years	62,538	37	17,780	28	38	10,648	17	36
1-3 years college	26,250	15	7,809	30	17	4,998	19	17
4 years college	13,936	8	3,759	27	8	2,616	19	9
5 years college or more	13,359	8	3,800	28	8	2,733	20	9

	Hunted only			Fished and hunted		
	Number	Percent of population	Percent of hunters	Number	Percent of population	Percent of sportsmen
Total persons	4,654	3	100	12,791	8	100
Population density of residence:						
Big cities	251	1	5	632	3	5
Small cities	1,234	2	27	3,340	5	26
Towns and rural areas	3,168	4	68	8,818	12	69
Census geographic division:						
New England	141	2	3	441	5	3
Middle Atlantic	809	3	17	1,289	5	10
East North Central	808	3	17	2,324	8	18
West North Central	517	4	11	1,497	12	12
South Atlantic	597	2	13	1,946	7	15
East South Central	386	4	8	1,273	12	10
West South Central	641	4	14	1,908	11	15
Mountain	409	5	9	883	10	7
Pacific	347	1	7	1,228	5	10

(See footnotes at end of table.)

Table 12. Selected Characteristics of Fishermen and Hunters: 1980 *(Continued)*

(U.S. population 16 years old and older. Numbers in thousands)

Characteristic	Hunted only			Fished and hunted		
	Number	Percent of population	Percent of hunters	Number	Percent of population	Percent of sportsmen
Sex and age group:						
Both sexes, total	4,654	3	100	12,791	8	100
16-17 years	289	3	6	999	12	8
18-24 years	1,109	4	24	2,761	10	22
25-34 years	1,221	3	26	3,696	10	29
35-44 years	777	3	17	2,351	9	18
45-54 years	584	3	13	1,361	6	11
55-64 years	442	2	10	998	5	8
65 years and older	232	1	5	625	3	5
Male, total	4,234	5	91	11,766	15	92
16-17 years	274	6	6	947	21	7
18-24 years	1,004	7	22	2,445	18	19
25-34 years	1,078	6	23	3,404	18	27
35-44 years	700	5	15	2,163	17	17
45-54 years	546	5	12	1,249	11	10
55-64 years	414	4	9	956	9	7
65 years and older	219	2	5	602	6	5
Female, total	419	(Z)	9	1,025	1	8
16-17 years	*15	(Z)	(Z)	52	1	(Z)
18-24 years	105	1	2	316	2	2
25-34 years	144	1	3	292	2	2
35-44 years	77	1	2	188	1	1
45-54 years	37	(Z)	1	111	1	1
55-64 years	29	(Z)	1	42	(Z)	(Z)
65 years and older	*13	(Z)	(Z)	3	(Z)	(Z)
Race:						
White	4,466	3	96	12,175	8	95
Black	159	1	3	452	2	4
All others	29	1	1	164	3	1
Annual household income:						
Under $5,000	199	2	4	498	4	4
$5,000-$9,999	430	2	9	1,291	6	10
$10,000-$14,999	604	3	13	1,731	8	14
$15,000-$19,999	677	4	15	1,834	9	14
$20,000-$24,999	740	3	16	2,212	10	17
$25,000-$29,999	498	3	11	1,697	10	13
$30,000-$39,999	434	3	9	1,216	9	10
$40,000-$49,999	215	4	5	443	8	3
$50,000 or more	177	3	4	471	8	4
Not reported	680	2	15	1,398	5	11

(See footnotes at end of table.)

Table 12. Selected Characteristics of Fishermen and Hunters: 1980 *(Continued)*

(U.S. population 16 years old and older. Numbers in thousands)

Characteristic	Hunted only			Fished and hunted		
	Number	Percent of population	Percent of hunters	Number	Percent of population	Percent of sportsmen
Education:						
None	*21	1	(Z)	29	2	(Z)
1-7 years	247	2	5	574	5	4
8 years	268	2	6	659	6	5
9-11 years	881	3	19	2,614	9	20
12 years	1,909	3	41	5,223	8	41
1-3 years college	753	3	16	2,058	8	16
4 years college	287	2	6	857	6	7
5 or more years college	290	2	6	778	6	6

* Estimate based on a small sample size.
Z Less than .5 percent.

Table 13. Selected Characteristics of Fishermen and Hunters 6-15 Years Old: 1980

(U.S. population 6-15 years old. Numbers in thousands)

Characteristic	U.S. population		Fished or hunted			Fished only		
	Number	Percent	Number	Percent of population	Percent of sportsmen	Number	Percent of population	Percent of fishermen
Total persons	35,313	100	12,141	34	100	10,179	29	100
Population density of residence:								
Big cities	4,379	12	771	18	6	693	16	7
Small cities	13,546	38	4,293	32	35	3,865	29	38
Towns and rural areas	17,388	49	7,078	41	58	5,621	32	55
Census geographic division:								
New England	1,868	5	627	34	5	575	31	6
Middle Atlantic	5,495	16	1,519	28	13	1,340	24	13
East North Central	6,648	19	2,446	37	20	2,176	33	21
West North Central	2,610	7	1,273	49	10	1,012	39	10
South Atlantic	5,729	16	1,827	32	15	1,509	26	15
East South Central	2,415	7	896	37	7	669	28	7
West South Central	3,945	11	1,342	34	11	989	25	10
Mountain	1,858	5	711	38	6	569	31	6
Pacific	4,746	13	1,500	32	12	1,341	28	13
Sex and age group:								
Both sexes, total	35,313	100	12,141	34	100	10,179	29	100
6-8 years	9,451	27	2,686	28	22	2,547	27	25
9-11 years	11,114	31	4,009	36	33	3,564	32	35
12-15 years	14,748	42	5,446	37	45	4,068	28	40
Male, total	17,995	51	8,186	45	67	6,370	35	63
6-8 years	4,873	14	1,705	35	14	1,587	33	16
9-11 years	5,639	16	2,598	46	21	2,192	39	22
12-15 years	7,483	21	3,882	52	32	2,591	35	25
Female, total	17,319	49	3,955	23	33	3,809	22	37
6-8 years	4,577	13	981	21	8	960	21	9
9-11 years	5,476	16	1,410	26	12	1,372	25	13
12-15 years	7,266	21	1,564	22	13	1,477	20	15
Race:								
White	28,711	81	11,271	39	93	9,377	33	92
Black	5,224	15	595	11	5	554	11	5
All others	1,378	4	275	20	2	247	18	2
Annual household income:								
Under $5,000	2,056	6	321	16	3	271	13	3
$5,000-9,999	4,275	12	1,045	24	9	918	21	9
$10,000-14,999	4,356	12	1,311	30	11	1,085	25	11
$15,000-19,999	4,404	12	1,576	36	13	1,304	30	13
$20,000-24,999	5,348	15	2,169	41	18	1,787	33	18
$25,000-29,999	4,141	12	1,807	44	15	1,537	37	15
$30,000-39,999	3,292	9	1,464	44	12	1,233	37	12
$40,000-49,999	1,159	3	506	44	4	423	37	4
$50,000 or more	1,318	4	634	48	5	532	40	5
Not reported	4,963	14	1,309	26	11	1,088	22	11

(See footnotes at end of table.)

Table 13. Selected Characteristics of Fishermen and Hunters 6-15 Years Old: 1980 *(Continued)*

(U.S. population 6-15 years old. Numbers in thousands)

Characteristic	Hunted only			Fished and hunted		
	Number	Percent of population	Percent of hunters	Number	Percent of population	Percent of hunters
Total persons	354	1	100	1.608	5	100
Population density of residence:						
Big cities	17	(Z)	5	60	1	4
Small cities	69	1	20	359	3	22
Towns and rural areas	268	2	76	1.189	7	74
Census geographic division:						
New England	10	1	3	42	2	3
Middle Atlantic	47	1	13	132	2	8
East North Central	47	1	13	223	3	14
West North Central	42	2	12	218	8	14
South Atlantic	46	1	13	272	5	17
East South Central	33	1	9	195	8	12
West South Central	58	1	16	295	7	18
Mountain	39	2	11	104	6	6
Pacific	32	1	9	126	3	8
Sex and age group:						
Both sexes, total	354	1	100	1.608	5	100
6-8 years	22	(Z)	6	116	1	7
9-11 years	63	1	18	381	3	24
12-15 years	268	2	76	1.110	8	69
Male, total	306	2	87	1.509	8	94
6-8 years	15	(Z)	4	102	2	6
9-11 years	53	1	15	353	6	22
12-15 years	238	3	67	1.053	14	66
Female, total	48	(Z)	13	99	1	6
6-8 years	7	(Z)	2	14	(Z)	1
9-11 years	10	(Z)	3	28	1	2
12-15 years	31	(Z)	9	57	1	4
Race:						
White	336	1	95	1.557	5	97
Black	10	(Z)	3	31	1	2
All others	7	1	2	20	1	1
Annual household income:						
Under $5,000	9	(Z)	3	40	2	3
$5,000-9,999	25	1	7	101	2	6
$10,000-14,999	32	1	9	194	4	12
$15,000-19,999	44	1	12	229	5	14
$20,000-24,999	74	1	21	308	6	19
$25,000-29,999	43	1	12	226	5	14
$30,000-39,999	33	1	9	198	6	12
$40,000-49,999	11	1	3	71	6	4
$50,000 or more	20	2	6	82	6	5
Not reported	63	1	18	158	3	10

Z Less than .5 percent.

Table 14. Selected Characteristics of Fishermen, by Type of Fishing: 1980

(U.S. population 16 years old and older. Numbers in thousands)

Characteristic	U.S. population		All fishermen			Freshwater						Saltwater		
						Great Lakes			Other					
	Number	Percent	Number	Percent of population	Percent	Number	Percent of population	Percent	Number	Percent of population	Percent	Number	Percent of population	Percent
Total persons	169.942	100	42.059	25	100	3.016	2	100	35.308	21	100	12.344	7	100
Population density of residence:														
Big cities	22.968	14	3.301	14	8	329	1	11	2.362	10	7	1.501	7	12
Small cities	71.041	42	15.794	22	38	1.452	2	48	12.229	17	35	5.843	8	47
Towns and rural areas	75.934	45	22.964	30	55	1.236	2	41	20.717	27	59	5.000	7	41
Census geographic division:														
New England	9.362	6	1.759	19	4	*17	(Z)	1	1.261	13	4	999	11	8
Middle Atlantic	27.867	16	4.235	15	10	499	2	17	2.793	10	8	2.047	7	17
East North Central	30.791	18	7.905	26	19	2.267	7	75	6.934	23	20	567	2	5
West North Central	12.774	8	4.201	33	10	90	1	3	4.188	33	12	92	1	1
South Atlantic	28.066	17	7.304	26	17	66	(Z)	2	5.447	19	15	3.775	13	31
East South Central	10.792	6	3.265	30	8	...	...	...	3.185	30	9	409	4	3
West South Central	17.550	10	5.159	29	12	*22	(Z)	1	4.548	26	13	1.299	7	11
Mountain	8.415	5	2.399	29	6	*24	(Z)	1	2.368	28	7	187	2	2
Pacific	24.326	14	5.831	24	14	...	...	...	4.584	19	13	2.970	12	24
Sex and age group:														
Both sexes, total	169.942	100	42.059	25	100	3.016	2	100	35.308	21	100	12.344	7	100
16-17 years	8.612	5	2.472	29	6	192	2	6	2.154	25	6	652	8	5
18-24 years	28.546	17	7.519	26	18	531	2	18	6.456	23	18	1.987	7	16
25-34 years	37.742	22	11.800	31	28	874	2	29	10.066	27	29	3.447	9	28
35-44 years	26.117	15	7.636	29	18	484	2	16	6.291	24	18	2.527	10	20
45-54 years	22.555	13	5.397	24	13	464	2	15	4.387	19	12	1.671	7	14
55-64 years	21.723	13	4.241	20	10	328	2	11	3.402	16	10	1.353	6	11
65 years and older	24.648	15	2.994	12	7	144	1	5	2.551	10	7	707	3	6
Male	80.753	48	29.009	36	69	2.339	3	78	24.514	30	69	8.918	11	72
Female	89.190	52	13.050	15	31	677	1	22	10.794	12	31	3.426	4	28
Race:														
White	146.999	86	38.695	26	92	2.855	2	95	32.627	22	92	11.138	8	90
Black	18.175	11	2.549	14	6	133	1	4	2.163	12	6	790	4	6
All others	4.768	3	814	17	2	*28	1	1	517	11	1	416	9	3

(See footnotes at end of table.)

Table 14. Selected Characteristics of Fishermen, by Type of Fishing: 1980 *(Continued)*

(U.S. population 16 years old and older. Numbers in thousands)

Characteristic	U.S. population		All fishermen			Freshwater						Saltwater		
						Great Lakes			Other					
	Number	Percent	Number	Percent of population	Percent	Number	Percent of population	Percent	Number	Percent of population	Percent	Number	Percent of population	Percent
Annual household income:														
Under $5,000	12,997	8	1,978	15	5	115	1	4	1,742	13	5	397	3	3
$5,000-$9,999	22,876	13	4,453	19	11	264	1	9	3,865	17	11	976	4	8
$10,000-$14,999	21,210	12	5,530	26	13	308	1	10	4,666	22	13	1,603	8	13
$15,000-$19,999	19,310	11	5,439	28	13	354	2	12	4,659	24	13	1,497	8	12
$20,000-$24,999	21,966	13	7,014	32	17	493	2	16	5,962	27	17	2,111	10	17
$25,000-$29,999	16,379	10	5,349	33	13	459	3	15	4,370	27	12	1,749	11	14
$30,000-$39,999	13,764	8	4,510	33	11	351	3	12	3,743	27	11	1,404	10	11
$40,000-$49,999	5,664	3	1,415	25	3	137	2	5	1,145	20	3	524	9	4
$50,000 or more	5,854	3	1,514	26	4	131	2	4	1,196	20	3	548	9	4
Not reported	29,923	18	4,856	16	12	405	1	13	3,959	13	11	1,535	5	12
Education:														
None	1,452	1	130	9	(Z)	...	...	...	122	8	(Z)	*33	2	(Z)
1-7 years	12,453	7	2,098	17	5	97	1	3	1,833	15	5	495	4	4
8 years	11,401	7	2,231	20	5	80	1	3	1,914	17	5	522	5	4
9-11 years	28,555	17	7,690	27	18	530	2	18	6,597	23	19	2,000	7	16
12 years	62,538	37	15,871	25	38	1,253	2	42	13,438	21	38	4,311	7	35
1-3 years college	26,250	15	7,056	27	17	587	2	19	5,816	22	16	2,401	9	19
4 years college	13,936	8	3,473	25	8	219	2	7	2,713	19	8	1,291	9	10
5 or more years college	13,359	8	3,511	26	8	248	2	8	2,875	22	8	1,291	10	10

* Estimate based on a small sample size.
... Sample size too small to report data reliably.
Z Less than .5 percent.

Table 15. Selected Characteristics of Hunters, by Type of Hunting: 1980

(U.S. population 16 years old and older. Numbers in thousands)

Characteristic	U.S. population		All hunters			Big game		
	Number	Percent	Number	Percent of population	Percent	Number	Percent of population	Percent
Total persons	169,942	100	17,444	10	100	11,806	7	100
Population density of residence:								
Big cities	22,968	14	883	4	5	517	2	4
Small cities	71,041	42	4,575	6	26	2,833	4	24
Towns and rural areas	75,934	45	11,987	16	69	8,456	11	72
Census geographic division:								
New England	9,362	6	582	6	3	478	5	4
Middle Atlantic	27,867	16	2,098	8	12	1,929	7	16
East North Central	30,791	18	3,132	10	18	2,058	7	17
West North Central	12,774	8	2,014	16	12	929	7	8
South Atlantic	28,066	17	2,543	9	15	1,807	6	15
East South Central	10,792	6	1,659	15	10	986	9	8
West South Central	17,550	10	2,549	15	15	1,600	9	14
Mountain	8,415	5	1,292	15	7	998	12	8
Pacific	24,326	14	1,575	6	9	1,022	4	9
Sex and age group:								
Both sexes, total	169,942	100	17,444	10	100	11,806	7	100
16-17 years	8,612	5	1,288	15	7	798	9	7
18-24 years	28,546	17	3,870	14	22	2,472	9	21
25-34 years	37,742	22	4,917	13	28	3,446	9	29
35-44 years	26,117	15	3,129	12	18	2,233	9	19
45-54 years	22,555	13	1,945	9	11	1,335	6	11
55-64 years	21,723	13	1,440	7	8	976	4	8
65 years and older	24,648	15	857	3	5	546	2	5
Male	80,753	48	16,000	20	92	10,777	13	91
Female	89,190	52	1,444	2	8	1,029	1	9
Race:								
White	146,999	86	16,641	11	95	11,419	8	97
Black	18,175	11	611	3	4	264	1	2
All others	4,768	3	193	4	1	123	3	1
Annual household income:								
Under $5,000	12,997	8	697	5	4	419	3	4
$5,000-$9,999	22,876	13	1,722	8	10	1,138	5	10
$10,000-$14,999	21,210	12	2,334	11	13	1,517	7	13
$15,000-$19,999	19,310	11	2,510	13	14	1,767	9	15
$20,000-$24,999	21,966	13	2,952	13	17	2,069	9	18
$25,000-$29,999	16,379	10	2,196	13	13	1,594	10	14
$30,000-$39,999	13,764	8	1,650	12	9	1,105	8	9
$40,000-$49,999	5,664	3	658	12	4	438	8	4
$50,000 or more	5,854	3	647	11	4	370	6	3
Not reported	29,923	18	2,078	7	12	1,388	5	12

(See footnotes at end of table.)

Table 15. Selected Characteristics of Hunters, by Type of Hunting: 1980 *(Continued)*

(U.S. population 16 years old and older. Numbers in thousands)

Characteristic	U.S. population		All hunters			Big game		
	Number	Percent	Number	Percent of population	Percent	Number	Percent of population	Percent
Education:								
None	1.452	1	49	3	(Z)	*24	2	(Z)
1-7 years	12.453	7	820	7	5	517	4	4
8 years	11.401	7	927	8	5	628	6	5
9-11 years	28.555	17	3.494	12	20	2.329	8	20
12 years	62.538	37	7.131	11	41	5.142	8	44
1-3 years college	26.250	15	2.811	11	16	1.830	7	16
4 years college	13.936	8	1.143	8	7	687	5	6
5 years college or more	13.359	8	1.068	8	6	648	5	5

	Small game			Migratory birds			Other animals		
	Number	Percent of population	Percent	Number	Percent of population	Percent	Number	Percent of population	Percent
Total persons	12.362	7	100	5.311	3	100	2.642	2	100
Population density of residence:									
Big cities	601	3	5	354	2	7	79	(Z)	3
Small cities	3.245	5	26	1.606	2	30	449	1	17
Towns and rural areas	8.516	11	69	3.351	4	63	2.114	3	80
Census geographic division:									
New England	370	4	3	133	1	3	85	1	3
Middle Atlantic	1.377	5	11	365	1	7	386	1	15
East North Central	2.295	7	19	585	2	11	491	2	19
West North Central	1.654	13	13	663	5	12	340	3	13
South Atlantic	1.786	6	14	843	3	16	386	1	15
East South Central	1.313	12	11	576	5	11	257	2	10
West South Central	1.871	11	15	1.086	6	20	397	2	15
Mountain	739	9	6	395	5	7	174	2	7
Pacific	957	4	8	665	3	13	126	1	5
Sex and age group:									
Both sexes, total	12.362	7	100	5.311	3	100	2.642	2	100
16-17 years	1.055	12	9	470	5	9	262	3	10
18-24 years	3.020	11	24	1.353	5	25	715	3	27
25-34 years	3.566	9	29	1.708	5	32	815	2	31
35-44 years	2.089	8	17	861	3	16	421	2	16
45-54 years	1.206	5	10	482	2	9	217	1	8
55-64 years	868	4	7	301	1	6	128	1	5
65 years and older	557	2	5	135	1	3	85	(Z)	3
Male	11.627	14	94	5.051	6	95	2.540	3	96
Female	735	1	6	260	(Z)	5	102	(Z)	4

(See footnotes at end of table.)

Table 15. Selected Characteristics of Hunters, by Type of Hunting: 1980 *(Continued)*

(U.S. population 16 years old and older. Numbers in thousands)

Characteristic	Small game			Migratory birds			Other animals		
	Number	Percent of population	Percent	Number	Percent of population	Percent	Number	Percent of population	Percent
Race:									
White	11.683	8	95	5.166	4	97	2.516	2	95
Black	546	3	4	80	(Z)	2	96	1	4
All others	133	3	1	65	1	1	30	1	1
Annual household income:									
Under $5.000	532	4	4	170	1	3	134	1	5
$5.000-$9.999	1.290	6	10	342	1	6	293	1	11
$10.000-$14.999	1.708	8	14	588	3	11	407	2	15
$15.000-$19.999	1.769	9	14	734	4	14	399	2	15
$20.000-$24.999	2.101	10	17	914	4	17	439	2	17
$25.000-$29.999	1.529	9	12	716	4	13	289	2	11
$30.000-$39.999	1.176	9	10	658	5	12	224	2	8
$40.000-$49.999	443	8	4	258	5	5	70	1	3
$50.000 or more	468	8	4	324	6	6	98	2	4
Not reported	1.346	4	11	607	2	11	290	1	11
Education:									
None	42	3	(Z)		...	...		...	...
1-7 years	597	5	5	143	1	3	122	1	5
8 years	608	5	5	149	1	3	121	1	5
9-11 years	2.613	9	21	948	3	18	636	2	24
12 years	4.999	8	40	1.987	3	37	1.109	2	42
1-3 years college	1.990	8	16	1.058	4	20	393	1	15
4 years college	760	5	6	513	4	10	125	1	5
5 years college or more	753	6	6	504	4	9	133	1	5

... Sample size too small to report data reliably.
Z Less than .5 percent.

Table 16. Expenditures for Fishing and Hunting: 1980

(U.S. population 16 years old and older)

Expenditure item	Spenders		Amount (thousands of dollars)	Average per sportsman (dollars)
	Number (thousands)	Percent of all sportsmen		
Total	44,644	96	26,091,699	558.56
Food and lodging:				
Food	33,602	72	4,436,002	94.96
Lodging	7,890	17	745,683	15.96
Transportation:				
Public	878	2	217,582	4.66
Private	36,136	77	4,300,796	92.07
Privilege and other fees:				
Guide	794	2	84,669	1.81
Pack trip	988	2	103,484	2.22
Public land use	3,128	7	60,386	1.29
Private land use	2,102	4	76,475	1.64
Boat launching	3,441	7	98,052	2.10
Equipment rental	4,328	9	244,532	5.23
Fishing equipment	29,094	62	2,034,473	43.55
Hunting equipment	13,373	29	2,034,742	43.56
Licenses, tags, and permits:				
Licenses	33,863	72	490,761	10.51
Duck stamps	2,906	6	21,796	0.47
Tags and permits	7,937	17	81,978	1.75
Auxiliary equipment:				
Camping equipment	3,121	7	256,696	5.50
Binoculars, field glasses, etc.	1,074	2	72,369	1.55
Snow shoes and skis	232	(Z)	23,578	0.50
Special hunting clothes	3,941	8	157,515	3.37
Special fishing clothes	2,208	5	70,731	1.51
Rubber boots and waders	2,586	6	69,899	1.50
Maintenance and repair of equipment	1,818	4	178,304	3.82
Hunting boots and packs	2,000	4	87,454	1.87
Processing and taxidermy costs	698	1	75,954	1.63
Other	465	1	31,331	0.67
Special equipment	12,532	27	8,967,632	191.97
Magazines	12,787	27	243,420	5.21
Club dues	6,852	15	206,921	4.43
Land leasing and ownership	1,208	3	618,485	13.24

Z Less than .5 percent.

Table 17. Expenditures for Fishing: 1980

(U.S. population 16 years old and older)

Expenditure item	Spenders		Amount (thousands of dollars)	Average per fisherman (dollars)
	Number (thousands)	Percent of all fishermen		
Total	39,437	94	17,324,656	411.91
Food and lodging:				
Food	29,410	70	3,255,902	77.41
Lodging	6,743	16	604,991	14.38
Transportation:				
Public	717	2	155,712	3.70
Private	31,284	74	2,897,230	68.89
Privilege and other fees:				
Guide	688	2	63,051	1.50
Pack trip	923	2	67,848	1.61
Public land use	2,462	6	42,763	1.02
Private land use	1,509	4	39,783	0.95
Boat launching	3,441	8	98,052	2.33
Equipment rental	4,205	10	216,045	5.14
Fishing equipment:				
Freshwater rods	10,563	25	344,210	8.18
Freshwater reels	8,549	20	264,670	6.29
Saltwater rods	2,046	5	109,810	2.61
Saltwater reels	1,915	5	99,588	2.37
Lures, lines, hooks, etc.	23,599	56	552,627	13.14
Depth finders and fish finders	465	1	70,084	1.67
Tackle boxes	4,694	11	65,956	1.57
Minnow seines and traps	1,203	3	14,667	0.35
Minnow buckets and other bait holders	4,262	10	29,097	0.69
Scales	534	1	2,919	0.07
Knives	4,524	11	66,564	1.58
Prepared bait	10,489	25	189,152	4.50
Rod holders	1,028	2	11,576	0.28
Spear fishing equipment	290	1	12,870	0.31
Creels, stringers, and fish bags	2,101	5	12,463	0.30
Landing nets	2,695	6	22,145	0.53
Seines and other nets	539	1	16,868	0.40
Ice fishing equipment	547	1	12,714	0.30
Other	3,953	9	136,493	3.25
Licenses, tags, and permits:				
Licenses	26,698	63	264,478	6.29
Stamps, tags, and permits	4,427	11	44,364	1.05

(See footnotes at end of table.)

Table 17. Expenditures for Fishing: 1980 *(Continued)*

(U.S. population 16 years old and older)

Expenditure item	Spenders		Amount (thousands of dollars)	Average per fisherman (dollars)
	Number (thousands)	Percent of all fishermen		
Auxiliary equipment used primarily for fishing:				
Camping equipment	1,982	5	162,288	3.86
Binoculars, field glasses, etc.	258	1	19,106	0.45
Snow shoes and skis	*41	(Z)	*2,930	*0.07
Special fishing clothes	1,915	5	63,643	1.51
Rubber boots and waders	1,814	4	48,043	1.14
Maintenance and repair of equipment	1,304	3	126,993	3.02
Processing and taxidermy costs	189	(Z)	17,613	0.42
Other	328	1	17,605	0.42
Special equipment	9,023	21	6,449,230	153.34
Magazine subscriptions	8,184	19	155,650	3.70
Membership dues	4,522	11	136,462	3.24
Land leasing and ownerships	664	2	340,403	8.09

Note: Detail in tables 18 and 19 does not add to totals in this table because of multiple responses.
* Estimate based on a small sample size.
Z Less than .5 percent.

Table 18. Expenditures for Freshwater Fishing: 1980

(U.S. population 16 years old and older)

Expenditure item	Spenders		Amount (thousands of dollars)	Average per fisherman (dollars)
	Number (thousands)	Percent of all fishermen		
Total	34,195	94	7,794,210	214.25
ALL FRESHWATER				
Fishing equipment used primarily in freshwater:				
Freshwater rods	10,404	29	339,452	9.33
Freshwater reels	8,421	23	260,509	7.16
Lures, lines, hooks, etc.	19,821	54	452,169	12.43
Depth finders and fish finders	360	1	44,340	1.22
Tackle boxes	3,982	11	53,203	1.46
Minnow seines and traps	1,087	3	13,177	0.36
Minnow buckets and other bait holders	3,836	11	25,624	0.70
Scales	429	1	2,039	0.06
Knives	3,450	9	49,379	1.36
Prepared bait	8,171	22	123,345	3.39
Rod holders	769	2	6,743	0.19
Spear fishing equipment	106	(Z)	2,466	0.07
Creels, stringers, and fish bags	1,913	5	10,962	0.30
Landing nets	2,247	6	17,738	0.49
Seines and other nets	329	1	7,856	0.22
Ice fishing equipment	527	1	12,298	0.34
Other	3,277	9	74,619	2.05
Licenses, tags, and permits:				
Licenses	25,208	69	250,584	6.89
Stamps, tags and permits	4,077	11	42,484	1.17
Auxiliary equipment used primarily for freshwater fishing:				
Camping equipment	1,833	5	153,127	4.21
Binoculars, field glasses, etc.	214	1	15,631	0.43
Snow shoes and skis	*36	(Z)	*2,551	*0.07
Special fishing clothes	1,602	4	49,156	1.35
Rubber boots and waders	1,637	5	43,799	1.20
Maintenance and repair of equipment	990	3	75,761	2.08
Processing and taxidermy costs	177	(Z)	15,203	0.42
Other	287	1	13,296	0.37

(See footnotes at end of table.)

Table 18. Expenditures for Freshwater Fishing: 1980 *(Continued)*

(U.S. population 16 years old and older)

Expenditure item	Spenders		Amount (thousands of dollars)	Average per fisherman (dollars)
	Number (thousands)	Percent of all fishermen		
FRESHWATER[1]				
Food and lodging:				
Food	23,433	66	2,342,692	66.35
Lodging	5,125	15	389,138	11.02
Transportation:				
Public	339	1	78,386	2.22
Private	25,678	73	2,225,147	63.02
Privilege and other fees:				
Guide	290	1	23,779	0.67
Pack trip	90	(Z)	11,152	0.32
Public land use	2,020	6	31,518	0.89
Private land use	1,269	4	33,852	0.96
Boat launching	2,216	6	45,969	1.30
Equipment rental	2,403	7	81,578	2.31
GREAT LAKES				
Food and lodging:				
Food	2,211	73	171,497	56.80
Lodging	419	14	31,110	10.31
Transportation:				
Public	*36	1	*6,500	*2.15
Private	2,263	75	132,280	43.86
Privilige and other fees:				
Guide	82	3	4,570	1.52
Pack trip	*32	1	*1,710	*0.57
Public land use	82	3	1,837	0.61
Private land use	*35	1	*478	*0.16
Boat launching	363	12	15,302	5.07
Equipment rental	244	8	8,199	2.72

* Estimate based on a small sample size.
Z Less than .5 percent.
[1] Excludes Great Lakes.

Table 19. Expenditures for Saltwater Fishing: 1980

(U.S. population 16 years old and older)

Expenditure item	Spenders		Amount (thousands of dollars)	Average per fisherman (dollars)
	Number (thousands)	Percent of all fishermen		
Total	10,251	85	2,419,113	199.88
Food and lodging:				
Food	8,243	68	741,698	61.28
Lodging	1,572	13	184,742	15.26
Transportation:				
Public	377	3	70,826	5.85
Private	8,137	67	539,758	44.60
Privilege and other fees:				
Guide	344	3	34,703	2.87
Pack trip	816	7	54,979	4.54
Public land use	418	3	9,408	0.78
Private land use	232	2	5,453	0.45
Boat launching	1,093	9	36,782	3.04
Equipment rental	1,764	15	126,267	10.43
Fishing equipment used primarily in saltwater:				
Saltwater rods	1,963	16	106,525	8.80
Saltwater reels	1,784	15	95,104	7.86
Lures, lines, hooks, etc.	3,553	29	94,152	7.78
Depth finders and fish finders	99	1	25,169	2.08
Tackle boxes	681	6	11,582	0.96
Minnow seines and traps	109	1	1,426	0.12
Minnow buckets and other bait holders	412	3	3,379	0.28
Scales	101	1	856	0.07
Knives	1,023	8	16,150	1.33
Prepared bait	2,257	19	64,619	5.34
Rod holders	253	2	4,684	0.39
Spear fishing equipment	174	1	9,979	0.82
Creels, stringers, and fish bags	177	1	1,427	0.12
Landing nets	424	4	4,198	0.35
Seines and other nets	203	2	8,752	0.72
Other	694	6	61,085	5.05
Licenses, tags, and permits:				
Licenses	1,893	16	13,833	1.14
Stamps, tags and permits	468	4	1,881	0.16
Auxiliary equipment used primarily for saltwater fishing:				
Camping equipment	149	1	9,161	0.76
Binoculars, field glasses, etc.	44	(Z)	3,475	0.29
Snow shoes and skis	...	...	...	...
Special fishing clothes	313	3	14,487	1.20
Rubber boots and waders	177	1	4,244	0.35
Maintenance and repair of equipment	313	3	51,232	4.23
Processing and taxidermy costs	...	...	...	...
Other	*42	(Z)	*4,309	*0.36

* Estimate based on a small sample size.
... Sample size too small to report data reliably.
Z Less than .5 percent.

Table 20. Expenditures for Hunting: 1980

(U.S. population 16 years old and older)

Expenditure item	Spenders		Amount (thousands of dollars)	Average per hunter (dollars)
	Number (thousands)	Percent of all hunters		
Total	16,438	94	8,545,148	489.85
Food and lodging:				
Food	12,187	70	1,180,101	67.65
Lodging	1,730	10	140,692	8.07
Transportation:				
Public	535	3	61,870	3.55
Private	14,488	83	1,403,567	80.46
Privilege and other fees:				
Guide	248	1	21,618	1.24
Pack trip	226	1	35,636	2.04
Public land use	900	5	17,623	1.01
Private land use	803	5	36,692	2.10
Equipment rental	371	2	28,487	1.63
Hunting equipment:				
Guns and rifles	3,239	19	902,204	51.72
Bows and arrows	1,134	7	104,507	5.99
Telescopic sights	1,079	6	105,678	6.06
Decoys and game calls	780	4	27,530	1.58
Game carriers	359	2	6,965	0.40
Ammunition	12,414	71	449,638	25.78
Hand loading equipment	1,156	7	95,119	5.45
Equipment cases and carriers	1,249	7	34,969	2.00
Hunting dogs and associated costs	1,020	6	275,084	15.77
Other	426	2	33,049	1.89
Licenses, tags, and permits:				
Licenses	11,989	69	205,214	11.76
Federal duck stamps	2,791	16	20,932	1.20
Other stamps, tags and permits	3,802	22	35,453	2.03
Auxiliary equipment used primarily for hunting:				
Camping equipment	556	3	45,147	2.59
Binoculars, field glasses, etc.	558	3	38,564	2.21
Snow shoes and skis	66	(Z)	5,575	0.32
Special hunting clothes	3,332	19	129,191	7.41
Rubber boots and waders	504	3	14,781	0.85
Maintenance and repair of equipment	272	2	20,232	1.16
Hunting boots and packs	1,482	9	63,693	3.65
Processing and taxidermy costs	424	2	42,682	2.45
Other	99	1	7,942	0.46
Special equipment	3,509	20	2,518,402	144.37
Magazine subscriptions	4,603	26	87,770	5.03
Membership dues	2,330	13	70,459	4.04
Land leasing and ownership	544	3	278,082	15.94

Note: Detail in tables 21-24 does not add to totals in this table because of multiple responses.
Z Less than .5 percent.

Table 21. Expenditures for Big Game Hunting: 1980

(U.S. population 16 years old and older)

Expenditure item	Spenders		Amount (thousands of dollars)	Average per hunter (dollars)
	Number (thousands)	Percent of all hunters		
Total	11,490	97	2,789,651	236.29
Food and lodging:				
Food	8,657	73	667,605	56.55
Lodging	1,052	9	91,575	7.76
Transportation:				
Public	117	1	35,047	2.97
Private	9,896	84	650,010	55.06
Privilege and other fees:				
Guide	53	(Z)	14,730	1.25
Pack trip	46	(Z)	11,738	0.99
Public land use	448	4	12,218	1.03
Private land use	366	3	18,542	1.57
Equipment rental	92	1	12,904	1.09
Hunting equipment used primarily for big game hunting:				
Guns and rifles	1,531	13	442,527	37.48
Bows and arrows	993	8	91,677	7.77
Telescopic sights	782	7	82,812	7.01
Decoys and game calls	120	1	1,554	0.13
Game carriers	55	(Z)	2,248	0.19
Ammunition	4,759	40	122,068	10.34
Hand loading equipment	489	4	28,616	2.42
Equipment cases and carriers	549	5	15,698	1.33
Hunting dogs and associated costs	163	1	44,404	3.76
Other	242	2	17,099	1.45
Licenses, tags, and permits:				
Licenses	7,485	63	134,010	11.35
Stamps, tags and permits	2,224	19	21,848	1.85
Auxiliary equipment used primarily for big game hunting:				
Camping equipment	460	4	37,504	3.18
Binoculars, field glasses, etc.	443	4	32,492	2.75
Snow shoes and skis	29	(Z)	1,527	0.13
Special hunting clothes	2,409	20	93,546	7.92
Rubber boots and waders	164	1	3,869	0.33
Maintenance and repair of equipment	157	1	13,488	1.14
Hunting boots and packs	1,033	9	45,706	3.87
Processing and taxidermy costs	323	3	35,390	3.00
Other	86	1	7,198	0.61

Z Less than .5 percent.

Table 22. Expenditures for Small Game Hunting: 1980

(U.S. population 16 years old and older)

Expenditure item	Spenders		Amount (thousands of dollars)	Average per hunter (dollars)
	Number (thousands)	Percent of all hunters		
Total	10,992	89	1,663,436	134.56
Food and lodging:				
Food	6,267	51	336,124	27.19
Lodging	347	3	29,795	2.41
Transportation:				
Public	56	(Z)	15,923	1.29
Private	8,823	71	485,666	39.29
Privilege and other fees:				
Guide	*17	(Z)	*772	*0.06
Pack trip	*15	(Z)	*668	*0.05
Public land use	217	2	2,848	0.23
Private land use	188	2	9,430	0.76
Equipment rental	28	(Z)	13,873	1.12
Hunting equipment used primarily for small game hunting:				
Guns and rifles	1,104	9	261,899	21.19
Bows and arrows	78	1	6,659	0.54
Telescopic sights	187	2	10,737	0.87
Decoys and game calls	81	1	1,333	0.11
Game carriers	216	2	3,247	0.26
Ammunition	4,910	40	178,478	14.44
Hand loading equipment	303	2	31,128	2.52
Equipment cases and carriers	407	3	10,548	0.85
Hunting dogs and associated costs	554	4	128,665	10.41
Other	86	1	4,237	0.34
Licenses, tags, and permits:				
Licenses	5,368	43	59,682	4.83
Stamps, tags and permits	616	5	3,814	0.31
Auxiliary equipment used primarily for small game hunting:				
Camping equipment	82	1	6,659	0.54
Binoculars, field glasses, etc.	88	1	4,758	0.38
Snow shoes and skis	32	(Z)	3,291	0.27
Special hunting clothes	731	6	24,959	2.02
Rubber boots and waders	111	1	3,040	0.25
Maintenance and repair of equipment	80	1	3,703	0.30
Hunting boots and packs	403	3	16,342	1.32
Processing and taxidermy costs	64	1	4,427	0.36
Other	*16	(Z)	*729	*0.06

* Estimate based on a small sample size.
Z Less than .5 percent.

Table 23. Expenditures for Migratory Bird Hunting: 1980

(U.S. population 16 years old and older)

Expenditure item	Spenders		Amount (thousands of dollars)	Average per hunter (dollars)
	Number (thousands)	Percent of all hunters		
Total	4,651	88	637,949	120.12
Food and lodging:				
Food	3,084	58	143,183	26.96
Lodging	232	4	17,861	3.36
Transportation:				
Public	35	1	8,576	1.61
Private	3,945	74	179,708	33.84
Privilege and other fees:				
Guide	43	1	4,013	0.76
Pack trip	*11	(Z)	*737	*0.14
Public land use	138	3	2,502	0.47
Private land use	169	3	8,104	1.53
Equipment rental	59	1	1,386	0.26
Hunting equipment used primarily for migratory bird hunting:				
Guns and rifles	228	4	63,559	11.97
Bows and arrows	...	...	...	...
Telescopic sights	...	...	...	...
Decoys and game calls	501	9	23,003	4.33
Game carriers	63	1	829	0.16
Ammunition	1,333	25	69,657	13.12
Hand loading equipment	145	3	11,523	2.17
Equipment cases and carriers	126	2	3,141	0.59
Hunting dogs and associated costs	116	2	26,259	4.94
Other	38	1	3,336	0.63
Licenses, tags, and permits:				
Licenses	861	16	11,250	2.12
Federal duck stamps	[1]2,489	47	18,671	3.52
Other stamps, tags and permits	1,309	25	9,687	1.82
Auxiliary equipment used primarily for migratory bird hunting:				
Camping equipment	*15	(Z)	*984	*0.19
Binoculars, field glasses, etc.	*27	1	*1,315	*0.25
Snow shoes and skis	...	...	...	...
Special hunting clothes	192	4	10,686	2.01
Rubber boots and waders	229	4	7,865	1.48
Maintenance and repair of equipment	35	1	3,041	0.57
Hunting boots and packs	46	1	1,645	0.31
Processing and taxidermy costs	36	1	2,746	0.52
Other	...	...	...	...

* Estimate based on a small sample size.
... Sample size too small to report data reliably.
Z Less than .5 percent.
[1] Less than total reported in table 20 because not all purchasers hunted waterfowl in 1980.

Table 24. Expenditures for Hunting Other Animals: 1980

(U.S. population 16 years old and older)

Expenditure item	Spenders		Amount (thousands of dollars)	Average per hunter (dollars)
	Number (thousands)	Percent of all hunters		
Total	1,681	64	251,360	95.14
Food and lodging:				
Food	868	33	33,189	12.56
Lodging	*17	1	*1,461	*0.55
Transportation:	...	...	...	...
Public	...	...	...	...
Private	1,497	57	88,182	33.38
Privilege and other fees:	...	...	...	...
Guide	...	...	...	...
Pack trip	*11	(Z)	*55	*0.02
Public land use	*18	1	*616	*0.23
Private land use	...	...	...	...
Equipment rental				
Hunting equipment used primarily for other hunting:	68	3	17,587	6.66
Guns and rifles	...	...	...	...
Bows and arrows	42	2	5,721	2.17
Telescopic sights	56	2	1,349	0.51
Decoys and game calls	...	(Z)	205	0.08
Game carriers	193	...	...	...
Ammunition	51	2	5,233	1.98
Hand loading equipment	*16	1	*484	*0.18
Equipment cases and carriers	131	5	55,428	20.98
Hunting dogs and associated costs	32	1	7,047	2.67
Other				
Licenses, tags, and permits:	*21	1	*272	*0.10
Licenses	...	...	...	...
Stamps, tags and permits				

* Estimate based on a small sample size.
... Sample size too small to report data reliably.
Z Less than .5 percent.

Table 25. Special Equipment Purchased or Available for Fishing and Hunting: 1980

(U.S. population 16 years old and older)

Expenditure item	Purchased in 1980 primarily for fishing or hunting				Available or already owned in 1980	
	Spenders					
	Number (thousands)	Percent of all sportsmen	Amount (thousands of dollars)	Average per spender (dollars)	Sportsmen (thousands)	Percent of all sportsmen
Total	12,532	27	8,967,632	716	25,780	55
Inboard boat	149	(Z)	599,723	4,028	2,976	6
Outboard boat	1,054	2	1,319,764	1,253	14,706	31
Other boat	414	1	323,346	781	5,205	11
Outboard motor	1,099	2	627,825	571	12,935	28
Boat accessories	1,584	3	221,600	140	10,738	23
Travel or tent trailer	326	1	569,661	1,747	4,286	9
Pickup camper or van	549	1	1,436,371	2,615	6,643	14
Motorhome	66	(Z)	542,471	8,194	1,443	3
Boat trailers and hitches	858	2	181,456	212	8,589	18
Cabins	89	(Z)	467,298	5,257	3,424	7
Trail bikes, dune buggies, and 4×4 vehicles	491	1	1,532,999	3,123	3,489	7
Gasoline for boat	10,879	23	837,611	77	4,538	10
Other	566	1	307,508	543	639	1

Z Less than .5 percent.

Table 26. Summary of Expenditures for Fishing and Hunting, by Type of Fishing and Hunting: 1980

(Thousands of dollars. U.S. population 16 years old and older)

Expenditure item	Hunting and fishing	Fishing			
		All fishing	Freshwater		Saltwater
			Total	Great Lakes	
Total	26,091,698	17,324,656	7,794,209	373,488	2,419,113
Food and lodging	5,181,685	3,860,892	2,934,438	202,607	926,440
Transportation	4,518,379	3,052,942	2,442,313	138,779	610,584
Privilege and other fees	667,598	527,541	259,950	32,102	267,591
Equipment (hunting, fishing)	4,069,215	2,034,473	1,495,917	(NA)	509,088
Licenses, tags and permits	594,535	308,842	293,067	(NA)	15,714
Auxiliary equipment	1,023,830	458,221	368,524	(NA)	89,697
Special equipment	8,967,632	6,449,230	(NA)	(NA)	(NA)
Magazine subscriptions	243,420	155,650	(NA)	(NA)	(NA)
Membership dues	206,921	136,462	(NA)	(NA)	(NA)
Land leasing and ownership	618,485	340,403	(NA)	(NA)	(NA)

	Hunting				
	All hunting	Big game	Small game	Migratory birds	Other animals
Total	8,545,148	2,789,651	1,663,436	637,949	251,360
Food and lodging	1,320,793	759,180	365,919	161,044	34,650
Transportation	1,465,437	685,057	501,589	188,285	90,505
Privilege and other fees	140,056	70,132	27,591	16,741	25,592
Equipment (hunting, fishing)	2,034,742	848,704	636,933	203,216	100,110
Licenses, tags and permits	261,599	155,858	63,497	39,609	*375
Auxiliary equipment	367,808	270,720	67,907	29,054	*127
Special equipment	2,518,402	(NA)	(NA)	(NA)	(NA)
Magazine subscriptions	87,770	(NA)	(NA)	(NA)	(NA)
Membership dues	70,459	(NA)	(NA)	(NA)	(NA)
Land leasing and ownership	278,082	(NA)	(NA)	(NA)	(NA)

* Estimate based on a small sample size.
NA Not available.

Table 27. License Status of Freshwater Fishermen and Hunters: 1980

(U.S. population 16 years old and older. Numbers in thousands.)

Characteristic	Hunters		Fishermen	
	Number	Percent	Number	Percent
Total	17,444	100	36,378	100
Total licensed	15,781	90	29,314	80
Resident	15,013	86	26,777	73
Nonresident	1,725	9	5,666	15
Total unlicensed	1,510	8	6,927	19
Exempt	917	5	3,409	9
Over age	349	1	1,400	3
Under age	80	(Z)	542	1
Hunted or fished on own land	221	1	340	(Z)
Military	...	...	*17	(Z)
Disabled	31	(Z)	109	(Z)
Other	55	(Z)	294	(Z)
Nonexempt	983	5	4,791	13

Note: Detail does not add to total because of nonresponse or multiple responses; respondents could have been licensed in one State and exempt in another.

* Estimate based on a small sample size.

... Sample size too small to report data reliably.

Z Less than .5 percent.

Table 28. Selected Characteristics of Freshwater Fishermen and Hunters, by License Status: 1980

(U.S. population 16 years old and older. Numbers in thousands)

Characteristic	Freshwater fishermen						Hunters					
	Total		Licensed		Unlicensed		Total		Licensed		Unlicensed	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total persons	36,378	100	29,314	81	6,927	19	17,444	100	15,781	90	1,510	9
Population density of residence:												
Big cities	2,503	100	1,913	76	590	24	883	100	741	84	116	13
Small cities	12,718	100	10,392	82	2,263	18	4,575	100	4,131	90	389	9
Towns and rural areas	21,157	100	17,010	80	4,075	19	11,987	100	10,909	91	1,005	8
Census geographic division:												
New England	1,268	100	1,030	81	231	18	582	100	558	96	*24	4
Middle Atlantic	2,940	100	2,302	78	614	21	2,098	100	1,998	95	86	4
East North Central	7,791	100	6,313	81	1,454	19	3,132	100	2,852	91	254	8
West North Central	4,193	100	3,513	84	667	16	2,014	100	1,810	90	195	10
South Atlantic	5,470	100	3,911	72	1,534	28	2,543	100	2,263	89	264	10
East South Central	3,186	100	2,387	75	792	25	1,659	100	1,479	89	175	11
West South Central	4,567	100	3,589	79	951	21	2,549	100	2,240	88	285	11
Mountain	2,373	100	2,170	91	196	8	1,292	100	1,239	96	44	3
Pacific	4,590	100	4,098	89	488	11	1,575	100	1,341	85	182	12
Sex and age group:												
Both sexes, total	36,378	100	29,314	81	6,927	19	17,444	100	15,781	90	1,510	9
16-17 years	2,208	100	1,095	50	1,093	50	1,288	100	1,050	82	224	17
18-24 years	6,620	100	5,044	76	1,538	23	3,870	100	3,372	87	472	12
25-34 years	10,318	100	8,695	84	1,596	15	4,917	100	4,558	93	305	6
35-44 years	6,462	100	5,506	85	938	15	3,129	100	2,957	95	159	5
45-54 years	4,603	100	4,055	88	530	12	1,945	100	1,833	94	84	4
55-64 years	3,548	100	3,093	87	446	13	1,440	100	1,342	93	84	6
65 years and older	2,619	100	1,827	70	787	30	857	100	668	78	180	21
Male	25,256	100	21,252	84	3,935	16	16,000	100	14,589	91	1,287	8
Female	11,123	100	8,062	72	2,993	27	1,444	100	1,191	82	223	15
Race:												
White	33,638	100	27,344	81	6,176	18	16,641	100	15,110	91	1,380	8
Black	2,207	100	1,550	70	649	29	611	100	517	85	91	15
All others	533	100	420	79	103	19	193	100	153	80	39	20

(See footnotes at end of table.)

Table 28. Selected Characteristics of Freshwater Fishermen and Hunters, by License Status: 1980 *(Continued)*

(U.S. population 16 years old and older. Numbers in thousands)

Characteristic	Freshwater fishermen						Hunters					
	Total		Licensed		Unlicensed		Total		Licensed		Unlicensed	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Annual household income:												
Under $5,000	1,780	100	1,217	68	551	31	697	100	571	82	113	16
$5,000-$9,999	3,982	100	2,961	74	1,008	25	1,722	100	1,490	87	222	13
$10,000-$14,999	4,772	100	3,804	80	955	20	2,334	100	2,049	88	276	12
$15,000-$19,999	4,755	100	3,955	83	775	16	2,510	100	2,361	94	132	5
$20,000-$24,999	6,115	100	5,041	82	1,042	17	2,952	100	2,725	92	188	6
$25,000-$29,999	4,523	100	3,692	82	820	18	2,196	100	2,053	93	132	6
$30,000-$39,999	3,867	100	3,313	86	546	14	1,650	100	1,494	91	135	8
$40,000-$49,999	1,198	100	1,017	85	177	15	658	100	595	90	54	8
$50,000 or more	1,253	100	1,017	81	228	18	647	100	564	87	72	11
Not reported	4,134	100	3,292	80	825	20	2,078	100	1,879	90	186	9
Education:												
None	124	100	103	83	20	16	49	100	44	89	...	...
1-7 years	1,870	100	1,399	75	467	25	820	100	703	86	108	13
8 years	1,952	100	1,448	74	491	25	927	100	801	86	112	12
9-11 years	6,780	100	4,910	72	1,828	27	3,494	100	3,089	88	381	11
12 years	13,908	100	11,712	84	2,162	16	7,131	100	6,581	92	493	7
1-3 years college	6,004	100	5,090	85	886	15	2,811	100	2,542	90	234	8
4 years college	2,799	100	2,251	80	542	19	1,143	100	1,049	92	85	7
5 or more years college	2,942	100	2,398	82	532	18	1,068	100	970	91	91	9

* Estimate based on a small sample size.
... Sample size too small to report data reliably.

Table 29. Selected Characteristics of Freshwater Fishermen, by Type of Water Fished: 1980

(U.S. population 16 years old and older. Numbers in thousands)

Characteristic	Total		Manmade lakes and reservoirs (10 acres or more)		Manmade ponds and reservoirs (less than 10 acres)		Natural lakes and ponds		Rivers and streams		Other	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total persons	36,378	100	14,524	40	8,286	23	14,579	40	15,757	43	608	2
Population density of residence:												
Big cities	2,503	7	1,038	41	377	15	994	40	953	38	72	3
Small cities	12,718	35	5,214	41	2,201	17	5,831	46	5,095	40	296	2
Towns and rural areas	21,157	58	8,272	39	5,708	27	7,754	37	9,710	46	240	1
Census geographic division:												
New England	1,268	3	272	21	187	15	918	72	762	60	...	...
Middle Atlantic	2,940	8	785	27	607	21	1,267	43	1,781	61	58	2
East North Central	7,791	21	2,462	32	1,673	21	4,319	55	2,925	38	323	4
West North Central	4,193	12	1,563	37	1,077	26	2,055	49	1,689	40	*27	1
South Atlantic	5,470	15	2,165	40	1,527	28	1,410	26	2,325	43	82	1
East South Central	3,186	9	1,441	45	1,058	33	829	26	1,280	40	*25	1
West South Central	4,567	13	2,605	57	1,122	25	1,070	23	1,514	33	*38	1
Mountain	2,373	7	1,411	59	483	20	861	36	1,232	52	*18	1
Pacific	4,590	13	1,821	40	553	12	1,850	40	2,249	49	*27	1
Sex and age group:												
Both sexes, total	36,378	100	14,524	40	8,286	23	14,579	40	15,757	43	608	2
16-17 years	2,208	6	810	37	696	32	905	41	1,034	47	54	2
18-24 years	6,620	18	2,644	40	1,640	25	2,849	43	3,160	48	74	1
25-34 years	10,318	28	4,258	41	2,473	24	4,442	43	4,901	48	110	1
35-44 years	6,462	18	2,556	40	1,440	22	2,380	37	2,824	44	143	2
45-54 years	4,603	13	1,963	43	890	19	1,788	39	1,701	37	81	2
55-64 years	3,548	10	1,320	37	641	18	1,316	37	1,322	37	107	3
65 years and older	2,619	7	972	37	505	19	899	34	815	31	*38	1
Male	25,256	69	10,250	41	5,968	24	10,394	41	11,938	47	413	2
Female	11,123	31	4,274	38	2,318	21	4,184	38	3,819	34	195	2
Race:												
White	33,638	92	13,590	40	7,706	23	13,666	41	14,671	44	568	2
Black	2,207	6	725	33	475	22	714	32	882	40	*29	1
All others	553	1	209	39	105	20	199	37	204	38	...	...

(See footnotes at end of table.)

Table 29. Selected Characteristics of Freshwater Fishermen, by Type of Water Fished: 1980 *(Continued)*

(U.S. population 16 years old and older. Numbers in thousands)

Characteristic	Total		Manmade lakes and reservoirs (10 acres or more)		Manmade ponds and reservoirs (less than 10 acres)		Natural lakes and ponds		Rivers and streams		Other	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Annual household income:												
Under $5,000	1,780	5	596	34	456	26	669	38	770	43	...	...
$5,000-$9,999	3,982	11	1,427	36	965	24	1,404	35	1,657	42	65	2
$10,000-$14,999	4,772	13	1,956	41	1,142	24	1,721	36	2,242	47	68	1
$15,000-$19,999	4,755	13	1,994	42	1,143	24	1,842	39	2,153	45	82	2
$20,000-$24,999	6,115	17	2,592	42	1,397	23	2,499	41	2,606	43	94	2
$25,000-$29,999	4,523	12	1,811	40	947	21	1,949	43	2,024	45	86	2
$30,000-$39,999	3,867	11	1,529	40	821	21	1,630	42	1,707	44	74	2
$40,000-$49,999	1,198	3	584	49	274	23	546	46	529	44	*28	2
$50,000 or more	1,253	3	468	37	251	20	572	46	509	41	*28	2
Not reported	4,134	11	1,567	38	890	22	1,748	42	1,561	38	77	2
Education:												
None	124	(Z)	65	52	*29	23	*35	28	51	41	...	...
1-7 years	1,870	5	616	33	379	20	549	29	850	45	*23	1
8 years	1,952	5	723	37	462	24	653	33	726	37	*25	1
9-11 years	6,780	19	2,799	41	1,702	25	2,482	37	2,898	43	122	2
12 years	13,908	38	5,606	40	3,153	23	5,542	40	5,990	43	235	2
1-3 years college	6,004	17	2,494	42	1,271	21	2,713	45	2,776	46	95	2
4 years college	2,799	8	1,121	40	649	23	1,297	46	1,177	42	61	2
5 years or more	2,942	8	1,099	37	641	22	1,308	44	1,289	44	45	2
Most fishing in-State	(NA)	(NA)	11,141	(NA)	4,193	(NA)	7,794	(NA)	5,608	(NA)	0	(NA)
Most fishing out-of-State	(NA)	(NA)	1,302	(NA)	403	(NA)	1,977	(NA)	1,188	(NA)	0	(NA)

Note: Detail does not add to total because of multiple responses and nonresponse.
* Estimate based on a small sample size.
... Sample size too small to report data reliably.
NA Not available.
Z Less than .5 percent.

Table 30. Hunters and Days of Participation on Public Land, by Type of Hunting: 1980

(U.S. population 16 years and older. Numbers in thousands)

Type of game	All hunters		All public land				Federally managed			
			Hunters		Days		Hunters		Days	
	Number	Percent	Number	Percent of all hunters	Number	Percent of all days	Number	Percent of all public land	Number	Percent of all public land
Total hunters	17,444	100	7,879	45	104,375	32	3,284	42	30,736	29
Big game	11,806	68	5,545	47	45,881	41	2,530	46	17,400	38
Small game	12,362	71	4,088	33	39,118	26	1,281	31	8,981	23
Migratory birds	5,311	30	1,682	32	12,321	29	474	28	2,589	21
Other animals	2,642	15	558	21	7,055	18	171	31	1,766	25

Type of game	State managed				Locally managed				Unclassified			
	Hunters		Days		Hunters		Days		Hunters		Days	
	Number	Percent of all public land	Number	Percent of all public land	Number	Percent of all public land	Number	Percent of all public land	Number	Percent of all public land	Number	Percent of all public land
Total hunters	3,950	50	34,254	33	2,210	28	28,054	27	1,241	16	11,331	11
Big game	2,701	49	14,954	33	1,178	21	9,113	20	725	13	4,415	10
Small game	2,026	50	13,286	34	1,341	33	12,396	32	607	15	4,456	11
Migratory birds	779	46	4,351	35	486	29	3,778	31	260	15	1,602	13
Other animals	186	33	1,663	24	223	40	2,767	39	66	12	858	12

Note: Detail does not add to total because of multiple responses.

Table 31. Hunters and Days of Participation on Public Land, by Selected Characteristics: 1980

(U.S. population 16 years old and older. Numbers in thousands)

Characteristic	Hunters				Days			
		On public lands				On public lands		
	Total	Number	Percent of all hunters	Percent	Total	Number	Percent of all days	Days per hunter
Total persons	17,444	7,879	45	45	330,168	104,375	32	13
Population density of residence:								
Big cities	883	378	2	43	10,896	4,944	45	13
Small cities	4,575	2,359	14	52	66,874	26,697	40	11
Towns and rural areas	11,987	5,142	29	43	252,397	72,734	29	14
Census geographic division:								
New England	582	223	1	38	13,071	3,928	30	18
Middle Atlantic	2,098	1,064	6	51	36,632	12,688	35	12
East North Central	3,132	1,627	9	52	61,000	20,837	34	13
West North Central	2,014	867	5	43	35,065	11,110	32	13
South Atlantic	2,543	914	5	36	54,366	15,844	29	17
East South Central	1,659	450	3	27	38,248	6,744	18	15
West South Central	2,549	759	4	30	50,293	9,174	18	12
Mountain	1,292	987	6	76	18,009	11,319	63	11
Pacific	1,575	988	6	63	23,484	12,731	54	13
Sex and age group:								
Both sexes, total	17,444	7,879	45	45	330,168	104,375	32	13
16-17 years	1,288	542	3	42	30,476	8,037	26	15
18-24 years	3,870	1,708	10	44	83,115	23,755	29	14
25-34 years	4,917	2,324	13	47	98,566	33,077	34	14
35-44 years	3,129	1,519	9	49	57,008	20,974	37	14
45-54 years	1,945	837	5	43	28,223	8,952	32	11
55-64 years	1,440	611	4	42	19,796	5,780	29	9
65 years and older	857	339	2	40	12,985	3,801	29	11
Male	16,000	7,299	42	46	314,590	99,072	31	14
Female	1,444	580	3	40	15,578	5,303	34	9
Race:								
White	16,641	7,604	44	46	315,936	100,008	32	13
Black	611	164	1	27	10,690	2,549	24	16
All other races	193	112	1	58	3,542	1,819	51	16

(See footnotes at end of table.)

Table 31. Hunters and Days of Participation on Public Land, by Selected Characteristics: 1980 *(Continued)*

(U.S. population 16 years old and older. Numbers in thousands)

Characteristic	Hunters				Days			
		On public lands				On public lands		
	Total	Number	Percent of all hunters	Percent	Total	Number	Percent of all days	Days per hunter
Annual household income:								
Under $5,000	697	249	1	36	14,432	4,317	30	17
$5,000-$9,999	1,722	684	4	40	35,666	10,547	30	15
$10,000-$14,999	2,334	985	6	42	47,378	15,081	32	15
$15,000-$19,999	2,510	1,184	7	47	51,398	15,532	30	13
$20,000-$24,999	2,952	1,441	8	49	56,208	18,585	33	13
$25,000-$29,999	2,196	1,115	6	51	39,411	13,762	35	12
$30,000-$39,999	1,650	828	5	50	28,754	10,409	36	13
$40,000-$49,999	658	269	2	41	9,780	2,896	30	11
$50,000 or more	647	267	2	41	11,779	2,651	23	10
Not reported	2,078	857	5	41	35,363	10,596	30	12
Education:								
None	49	...	...	21	813	87	11	8
1-7 years	820	307	2	37	16,372	4,050	25	13
8 years	927	367	2	40	17,752	4,484	25	12
9-11 years	3,494	1,527	9	44	73,489	21,633	29	14
12 years	7,131	3,287	19	46	140,887	44,951	32	14
1-3 years college	2,811	1,371	8	49	48,174	18,160	38	13
4 years college	1,143	511	3	45	16,497	5,549	34	11
5 years or more	1,068	499	3	47	16,185	5,461	34	11

Note: Detail does not add to total because of multiple responses.
... Sample size too small to report data reliably.

Table 32. Fishermen and Days of Participation in Special Fishing: 1980

(U.S. population 16 years old and older. Numbers in thousands)

Type of fishing	Fishermen		Days		
	Number	Percent of total	Number	In-State	In other States
Total freshwater	36,378	100	710,572	638,343	72,228
Spear	441	1	2,544	2,252	293
Net or seine	1,163	3	6,517	6,039	477
Through the ice	1,992	5	11,922	11,439	484
Bow and arrow	293	1	1,420	1,260	160
Gigging for frogs	974	3	4,155	3,885	270

Table 33. Hunters and Days of Participation in Special Hunting: 1980

(U.S. population 16 years old and older. Numbers in thousands)

Type of hunting	Bow and arrow					Primitive firearm				
	Hunters		Days			Hunters		Days		
	Number	Percent	Number	In-State	In other States	Number	Percent	Number	In-State	In other States
Total hunters	2,015	100	17,474	16,528	946	833	100	5,553	5,125	428
Big game	1,889	94	15,977	15,170	807	666	80	3,302	3,107	195
Small game	236	12	1,199	1,162	37	217	26	1,420	1,286	135
Migratory birds	*25	1	*179	*79	*101	40	5	272	191	82
Other animals	31	2	119	118	1	47	6	558	541	17

Type of hunting	Pistol or handgun				
	Hunters		Days		
	Number	Percent	Number	In-State	In other States
Total hunters	1,315	100	10,748	9,808	939
Big game	402	31	2,134	1,808	327
Small game	827	63	5,821	5,398	423
Migratory birds	*25	2	*94	*58	*36
Other animals	212	16	2,698	2,544	154

Note: Detail does not add to total because of multiple responses.
* Estimate based on a small sample size.

Table 34. Land Owned or Leased Primarily for Fishing or Hunting: 1980

(U.S. population 16 years old and older)

Owned or leased land	Sportsmen (thousands)	Acres	
		Number (thousands)	Average
Fishermen:			
Owned	385	12,691	33
Leased	184	15,047	82
Hunters:			
Owned	549	34,158	62
Leased	633	374,622	592

Table 35. Land Leased or Owned for Fishing or Hunting, by Type of Activity and Cost: 1980

(U.S. population 16 years old and older)

Characteristic	All land			Primarily for fishing or hunting		
	Number (thousands)	Percent	Average per sportsman	Number (thousands)	Percent	Average per sportsman
Sportsmen	5,453	[1]12	(X)	1,522	[2]28	(X)
Hunters, total	3,284	60	(X)	1,096	72	(X)
Big game	1,805	33	(X)	853	56	(X)
Small game	1,804	33	(X)	511	34	(X)
Migratory bird	587	11	(X)	301	20	(X)
Other animals	322	6	(X)	91	6	(X)
Fishermen, total	3,096	57	(X)	619	41	(X)
Freshwater	192	4	(X)	65	4	(X)
Saltwater	32	1	(X)	...	...	(X)
Annual cost (dollars)	6,031,581	(X)	1,106	618,485	(X)	406
Wetland acres	108,872	(X)	20	43,774	(X)	29

Note: Detail does not add to total because of multiple responses or nonresponse.
... Sample size too small to report data reliably.
X Not applicable.
[1] Percent of total sportsmen.
[2] Percent of total owning or leasing land.

Table 36. Age First Fished or Hunted and Years of Participation: 1980

(U.S. population 16 years old and older. Numbers in thousands)

Age and years of participation	Hunters		Fishermen	
	Number	Percent	Number	Percent
BEGINNING AGE				
Total	17,444	100	42,059	100
Less than 6 years	396	2	9,797	24
6-8 years	2,054	12	12,487	30
9-11 years	3,030	17	7,858	19
12-15 years	7,556	43	5,544	13
16-17 years	2,010	12	1,249	3
18-24 years	1,380	8	2,216	5
25-34 years	566	3	1,384	3
35-44 years	151	1	573	1
45-54 years	44	(Z)	321	1
55-64 years	*23	(Z)	121	(Z)
65 years or older	...	...	86	(Z)
YEARS OF PARTICIPATION				
0-2 years	1,009	6	1,396	3
3-5 years	1,932	11	3,264	8
6-8 years	1,835	11	2,708	6
9-11 years	1,714	10	4,280	10
12-15 years	2,021	12	5,426	13
16-17 years	780	4	1,672	4
18-24 years	2,609	15	7,126	17
25-34 years	2,484	14	7,286	17
35-44 years	1,510	9	4,168	10
45-54 years	884	5	2,589	6
55-64 years	373	2	1,317	3
65 years or more	67	(Z)	403	1

* Estimate based on a small sample size.
... Sample size too small to report data reliably.
Z Less than .5 percent.

Table 37. Fishermen and Hunters Participating in 1979 but Not in 1980, by Age

(Numbers in thousands)

Age	Fishermen		Hunters	
	Number	Percent	Number	Percent
Total	9,145	100	4,255	100
6-8 years	259	3	47	1
9-11 years	480	5	76	2
12-15 years	649	7	171	4
16-17 years	378	4	174	4
18-24 years	1,549	17	859	20
25-34 years	2,128	23	1,161	27
35-44 years	1,301	14	729	17
45-54 years	949	10	464	11
55-64 years	794	9	322	8
65 years or older	657	7	253	6

Table 38. Fishermen and Hunters Participating for the First Time in 1980, by Age

(Numbers in thousands)

Age	Fishing for first time			Hunting for first time		
	All fishermen	Number	Percent	All hunters	Number	Percent
6-8 years	2,663	644	24	139	62	45
9-11 years	3,945	530	13	445	149	33
12-15 years	5,178	455	9	1,378	416	30
16-17 years	2,529	158	6	1,075	193	18
18-24 years	7,667	536	7	3,665	333	9
25-34 years	11,581	775	7	4,765	251	5
35-44 years	7,760	365	5	3,103	104	3
45-54 years	5,437	186	3	1,964	55	3
55-64 years	4,635	146	3	1,406	29	2
65 years or older	3,068	89	3	819	*17	2

* Estimate based on a small sample size.

Table 39. One-Way Distance Traveled by Fishermen and Hunters: 1980

(U.S. population 16 years old and older. Numbers in thousands.)

Average one-way distance traveled	Total		Fishermen		Hunters	
	Number	Percent	Number	Percent	Number	Percent
	Sportsmen					
0-5 miles	8,571	20	7,997	19	3,765	22
6-24 miles	12,928	30	11,137	26	4,823	28
25-49 miles	8,041	19	7,149	17	2,894	17
50-99 miles	6,798	16	5,898	14	2,562	15
100-249 miles	4,732	11	4,067	10	2,147	12
250-499 miles	1,203	3	1,076	3	490	3
500-999 miles	382	1	353	1	149	1
1,000 miles and over	169	(Z)	169	(Z)	55	(Z)
	Expenditures (dollars)					
0-5 miles	2,175,097	9	809,812	8	503,415	9
6-24 miles	5,830,850	23	2,219,738	22	1,381,946	25
25-49 miles	5,304,737	21	2,277,055	22	1,083,054	20
50-99 miles	5,872,272	23	2,259,086	22	1,150,443	21
100-249 miles	4,901,128	19	1,857,963	18	962,074	17
250-499 miles	968,770	4	437,681	4	271,938	5
500-999 miles	307,501	1	182,641	2	115,927	2
1,000 miles and over	137,639	1	88,945	1	57,568	1
	Days					
0-5 miles	229,160	20	182,060	22	79,908	25
6-24 miles	414,376	36	269,005	33	116,540	36
25-49 miles	233,371	20	164,262	20	57,399	18
50-99 miles	162,911	14	121,278	15	41,191	13
100-249 miles	86,404	8	66,610	8	24,446	7
250-499 miles	16,110	1	13,523	2	4,656	1
500-999 miles	5,062	(Z)	4,113	1	1,882	1
1,000 miles and over	2,471	(Z)	2,246	(Z)	745	(Z)

Z Less than .5 percent.
Note: Detail does not add to total because of nonresponse.

Table 40. In-State and Out-of-State Fishing: 1980

(U.S. population 16 years old and older. Numbers in thousands)

Fishing in-State and out-of-State	All fishing				Great Lakes			
	Fishermen		Days		Fishermen		Days	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total	42,059	100	857,566	100	3,016	100	40,532	100
1 State (not current State of residence)	3,130	7	28,941	3	384	13	2,335	6
2 States (not current State of residence)	321	1	4,552	1	*31	1	*355	1
3 States (not current State of residence)	*38	(Z)	*561	(Z)	...	...	...	...
4 or more States (not current State of residence)	...	...	...	...	...	...	...	...
Current State of residence only	31,668	75	601,638	70	2,508	83	36,179	39
Current State of residence and 1 other State	5,408	13	163,464	19	81	3	1,521	4
Current State of residence and 2 other States	910	2	37,968	4	...	...	...	...
Current State of residence and 3 other States	207	(Z)	9,474	1	...	...	...	...
Current State of residence and 4 or more other States	*40	(Z)	*2,046	(Z)	...	...	...	...
Foreign Countries, total	1,437	3	8,627	1	...	...	...	...
Canada	923	64	5,733	66	...	...	...	...
Mexico	337	23	1,757	20	...	...	...	...
Other	199	14	1,137	13	...	...	...	...

Fishing in-State and out-of-State	Other freshwater				Saltwater			
	Fishermen		Days		Fishermen		Days	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total	35,308	100	674,378	100	12,344	100	147,006	100
1 State (not current State of residence)	2,653	8	24,555	4	2,576	21	14,017	10
2 States (not current State of residence)	236	1	3,815	1	125	1	1,502	1
3 States (not current State of residence)	...	...	...	...	*24	(Z)	*290	(Z)
4 or more States (not current State of residence)	...	...	...	...	...	...	...	...
Current State of residence only	27,909	79	508,366	75	8,406	68	107,561	73
Current State of residence and 1 other State	3,584	10	108,452	16	729	6	16,909	12
Current State of residence and 2 other States	479	1	17,119	3	100	1	2,382	2
Current State of residence and 3 other States	113	(Z)	4,948	1	...	...	...	...
Current State of residence and 4 or more other States	...	...	...	...	...	...	...	...
Foreign countries, total	967	3	5,947	1	506	4	2,673	2
Canada	888	92	5,567	94	*39	8	*159	6
Mexico	46	5	243	4	302	60	1,515	57
Other	*34	4	*137	2	169	33	999	37

* Estimate based on a small sample size.
... Sample size too small to report data reliably.
Z Less than .5 percent.

Table 41. In-State and Out-of-State Hunting: 1980

(U.S. population 16 years old and older. Numbers in thousands.)

Hunting in-State and out-of-State	All hunting				Big Game				Small game			
	Hunters		Days		Hunters		Days		Hunters		Days	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total	17,414	100	330,168	100	11,806	100	112,788	100	12,362	100	151,246	100
1 State (not current State of residence)	778	4	8,252	2	619	5	4,191	4	585	5	5,220	3
2 States (not current State of residence)	58	(Z)	1,293	(Z)	*25	(Z)	*271	(Z)	*18	(Z)	*373	(Z)
3 States (not current State of residence)	...	...	...	...	...	...	...	...	...	...	...	...
4 States (not current State of residence)	...	...	...	...	...	...	...	...	...	...	...	...
Current State of residence only	15,311	88	278,996	85	10,557	89	96,773	86	11,200	91	135,215	89
Current State of residence and 1 other State	1,149	7	35,865	11	535	5	10,595	9	493	4	900	6
Current State of residence and 2 other States	88	1	3,586	1	*23	(Z)	*515	(Z)	31	(Z)	952	1
Current State of residence and 3 other States	*18	(Z)	*701	(Z)	...	...	...	...	...	...	...	...
Current State of residence and 4 or more other States	...	...	...	...	...	...	...	...	...	...	...	...
Foreign countries, total	74	(Z)	651	(Z)	34	(Z)	181	(Z)	39	(Z)	312	(Z)
Canada	44	59	325	50	*21	61	*133	73	*18	45	*97	31
Mexico	*27	37	*295	45	...	...	...	...	*19	47	*192	62
Other	...	...	...	...	...	...	...	...	...	...	...	...

Hunting in-State and out-of-State	Migratory birds				Other animals			
	Hunters		Days		Hunters		Days	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total	5,311	100	42,910	100	2,642	100	38,431	100
1 State (not current State of residence)	261	5	1,499	3	129	5	1,391	4
2 States (not current State of residence)	*16	(Z)	*339	1	...	...	...	...
3 States (not current State of residence)	...	...	...	...	...	...	...	...
4 or more States (not current State of residence)	...	...	...	...	...	...	...	...
Current State of residence only	4,818	91	37,762	88	2,414	91	34,219	89
Current State of residence and 1 other State	160	3	2,765	6	60	2	1,820	5
Current State of residence and 2 other States	*15	(Z)	*301	1	...	...	...	...
Current State of residence and 3 other States	...	...	...	...	...	...	...	...
Current State of residence and 4 or more other States	...	...	...	...	...	...	...	...
Foreign countries, total	33	1	209	(Z)	...	...	...	...
Canada	*20	61	*107	51	...	...	...	...
Mexico	*11	34	*82	39	...	...	...	...
Other	...	...	...	...	...	...	...	...

* Estimate based on a small sample size.
... Sample size too small to report data reliably.
Z Less than .5 percent.

Table 42. Membership in Sportsmen's Organizations and Magazine Readership: 1980

(U.S. population 16 years old and older. Numbers in thousands)

Activity	All sportsmen		Hunters		Fishermen	
	Number	Percent of all sportsmen	Number	Percent of all hunters	Number	Percent of all fishermen
Membership in—						
Local birding clubs	220	(Z)	84	(Z)	205	(Z)
Local rod and gun clubs	1,277	3	966	6	1,109	3
Other wildlife-related organizations	901	2	509	3	820	2
Belong to national wildlife-related or conservation organizations	7,108	15	3,515	20	6,377	15
Read magazines or periodicals devoted to fishing, hunting, or wildlife:						
Frequently	14,939	32	8,008	46	13,419	32
Sometimes	7,792	17	3,023	17	7,072	17
Rarely	6,002	13	1,892	11	5,394	13

Z Less than .5 percent.
Note: Detail does not add to total because of multiple responses.

Table 43. Fishermen and Hunters, by State of Residence: 1980

(U.S. population 16 years old and older. Numbers in thousands.)

State	Population	Fished or hunted		Fished only		Hunted only		Fished and hunted	
		Number	Percent of population	Number	Percent of population	Number	Percent of population	Number	Percent of population
Total, all States	169,942	46,713	27	29,268	17	4,654	3	12,791	8
Alabama	2,859	1,045	37	588	21	119	4	338	12
Alaska	274	148	54	87	32	9	3	52	19
Arizona	2,069	450	23	290	14	67	3	123	6
Arkansas	1,690	667	39	289	17	88	5	291	17
California	18,145	4,026	22	3,205	18	167	1	654	4
Colorado	2,174	758	35	495	23	54	2	210	10
Connecticut	2,362	453	19	359	15	...	...	84	4
Delaware	441	111	25	80	18	6	1	*26	6
District of Columbia	495	49	10	*42	9	...	...	...	...
Florida	7,856	2,225	28	1,799	23	97	1	329	4
Georgia	4,003	1,334	33	858	21	84	2	392	10
Hawaii	707	167	24	146	21	*4	1	*16	2
Idaho	672	333	50	148	22	43	6	142	21
Illinois	8,471	1,930	23	1,476	17	104	1	350	4
Indiana	4,035	1,218	30	844	21	98	2	276	7
Iowa	2,147	759	35	419	20	85	4	255	12
Kansas	1,764	637	36	394	22	70	4	174	10
Kentucky	2,678	842	31	521	19	55	2	265	10
Louisiana	3,051	1,025	34	540	18	126	4	359	12
Maine	830	283	34	109	13	47	6	127	15
Maryland	3,159	665	21	467	15	67	2	130	4
Massachusetts	4,377	733	17	603	14	33	1	97	2
Michigan	6,786	2,109	31	1,113	16	286	4	710	10
Minnesota	3,030	1,361	45	806	27	122	4	433	14
Mississippi	1,792	667	37	282	16	95	5	290	16
Missouri	3,700	1,181	32	698	19	115	3	368	10
Montana	573	254	44	100	17	49	9	105	18
Nebraska	1,160	381	33	206	18	55	5	121	10
Nevada	635	168	26	104	16	26	4	39	6
New Hampshire	694	159	23	86	12	21	3	52	7
New Jersey	5,576	914	16	729	13	72	1	113	2
New Mexico	942	259	28	147	16	42	4	71	8
New York	13,248	2,272	17	1,489	11	334	3	449	3
North Carolina	4,400	1,260	29	813	18	80	2	367	8
North Dakota	473	200	42	107	23	29	6	64	14
Ohio	7,998	2,116	26	1,446	18	206	3	465	6
Oklahoma	2,272	851	37	518	23	56	2	277	12
Oregon	2,021	763	38	438	22	76	4	250	12
Pennsylvania	9,043	1,858	21	728	8	402	4	727	8
Rhode Island	715	127	18	109	15	...	...	*15	2

(See footnotes at end of table.)

Table 43. Fishermen and Hunters, by State of Residence: 1980 *(Continued)*

(U.S. population 16 years old and older. Numbers in thousands)

State	Population	Fished or hunted		Fished only		Hunted only		Fished and hunted	
		Number	Percent of population	Number	Percent of population	Number	Percent of population	Number	Percent of population
South Carolina	2,275	667	29	461	20	37	2	169	7
South Dakota	500	198	40	75	15	41	8	82	16
Tennessee	3,464	1,098	32	601	17	117	3	380	11
Texas	10,536	3,256	31	1,905	18	370	4	982	9
Utah	998	374	37	167	17	94	9	113	11
Vermont	384	145	38	52	14	27	7	66	17
Virginia	3,982	1,136	29	691	17	131	3	314	8
Washington	3,180	1,074	34	726	23	91	3	257	8
West Virginia	1,454	454	31	147	10	93	6	214	15
Wisconsin	3,501	1,339	38	702	20	113	3	524	15
Wyoming	352	181	51	65	19	35	10	80	23

* Estimate based on a small sample size.
. . . Sample size too small to report data reliably.

Table 44. Fishermen and Hunters 6-15 Years Old, by State of Residence: 1980

(Numbers in thousands)

State	Population 6-15 years old	Fished or hunted		Fished only		Hunted only		Fished and hunted	
		Number	Percent of population	Number	Percent of population	Number	Percent of population	Number	Percent of population
Total, all States	35,313	12,141	34	10,179	29	354	1	1,608	5
Alabama	646	227	35	158	25	*13	2	55	9
Alaska	67	33	48	26	39	*1	1	5	8
Arizona	441	126	29	100	23	*12	3	*14	3
Arkansas	367	166	45	109	30	8	2	50	14
California	3,501	990	28	918	26	*19	1	53	2
Colorado	443	177	40	154	35	3	1	21	5
Connecticut	473	159	34	154	33	2	(Z)	4	1
Delaware	92	28	30	25	27	*1	1	3	3
District of Columbia	78	7	9	7	9	. . .	. . .	. . .	. . .
Florida	1,361	469	34	396	29	9	1	63	5
Georgia	929	330	35	273	29	8	1	49	5
Hawaii	148	35	24	*33	23	*1	(Z)	*1	1
Idaho	160	92	57	69	44	3	2	*19	12
Illinois	1,769	598	34	564	32	3	(Z)	31	2
Indiana	888	338	38	293	33	4	(Z)	41	5
Iowa	441	224	51	155	35	15	3	54	12
Kansas	344	169	49	143	42	4	1	23	7
Kentucky	593	279	47	232	39	5	1	42	7
Louisiana	730	227	31	144	20	21	3	62	8
Maine	179	77	43	56	31	3	2	*18	10

(See footnotes at end of table.)

Table 44. Fishermen and Hunters 6-15 Years Old, by State of Residence: 1980 *(Continued)*

(Numbers in thousands)

State	Population 6-15 years old	Fished or hunted		Fished only		Hunted only		Fished and hunted	
		Number	Percent of population	Number	Percent of population	Number	Percent of population	Number	Percent of population
Maryland	662	189	29	171	26	3	(Z)	*16	2
Massachusetts	850	250	29	245	29	*1	(Z)	4	1
Michigan	1,536	514	33	442	29	18	1	54	3
Minnesota	638	380	60	323	51	7	1	50	8
Mississippi	447	154	35	102	23	6	1	47	10
Missouri	744	307	41	249	33	6	1	52	7
Montana	121	61	50	43	35	6	5	*12	10
Nebraska	237	89	37	61	26	7	3	*20	9
Nevada	123	36	29	29	24	*1	1	6	5
New Hampshire	147	55	37	49	33	*1	1	5	3
New Jersey	1,130	292	26	271	24	7	1	*14	1
New Mexico	226	71	31	60	26	4	2	7	3
New York	2,610	657	25	610	23	11	(Z)	37	1
North Carolina	942	278	30	228	24	7	1	43	5
North Dakota	99	51	51	42	42	2	2	7	7
Ohio	1,707	649	38	591	35	10	1	48	3
Oklahoma	463	215	46	172	37	2	(Z)	41	9
Oregon	396	191	48	158	40	6	1	28	7
Pennsylvania	1,755	569	32	459	26	30	2	80	5
Rhode Island	137	43	31	*40	29	*1	(Z)	2	2
South Carolina	527	137	26	105	20	2	(Z)	30	6
South Dakota	106	52	49	*39	36	2	2	11	11
Tennessee	730	236	32	177	24	8	1	51	7
Texas	2,385	734	31	565	24	27	1	143	6
Utah	267	109	41	82	31	9	3	17	7
Vermont	82	42	52	*31	38	3	3	...	...
Virginia	829	273	33	219	26	8	1	46	6
Washington	634	251	40	205	32	7	1	39	6
West Virginia	310	115	37	85	27	9	3	22	7
Wisconsin	748	346	46	286	38	*12	2	49	7
Wyoming	77	40	52	*31	40	*1	1	8	11

* Estimate based on a small sample size.
... Sample size too small to report data reliably.
Z Less than .5 percent.

Table 45. Fishermen and Days of Participation, by Type of Fishing and State of Residence: 1980

(U.S. population 16 years old and older. Numbers in thousands.)

State	Fishermen						
		Saltwater only		Freshwater only		Freshwater and saltwater	
	Total	Number	Percent	Number	Percent	Number	Percent
Total, all States	42,059	5,681	14	29,715	71	6,664	16
Alabama	925	*34	4	763	82	128	14
Alaska	139	18	13	79	57	42	30
Arizona	413	...	...	361	87	43	10
Arkansas	580	...	...	567	98	*12	2
California	3,859	758	20	1,924	50	1,178	31
Colorado	704	...	...	655	93	44	6
Connecticut	444	133	30	169	38	142	32
Delaware	106	67	63	17	16	22	21
District of Columbia	47	*23	48	...	...	...	...
Florida	2,127	775	36	638	30	714	34
Georgia	1,250	61	5	968	77	221	18
Hawaii	162	138	85	*8	5	16	10
Idaho	291	...	...	270	93	*17	6
Illinois	1,826	*38	2	1,685	92	103	6
Indiana	1,119	...	...	1,053	94	53	5
Iowa	674	...	...	663	98	...	...
Kansas	568	...	...	547	96	*17	3
Kentucky	786	...	...	721	92	55	7
Louisiana	899	112	12	624	69	163	18
Maine	236	13	6	172	73	51	22
Maryland	598	283	47	173	29	142	24
Massachusetts	700	272	39	208	30	219	31
Michigan	1,823	*33	2	1,681	92	109	6
Minnesota	1,239	...	...	1,218	98	*21	2
Mississippi	572	*20	4	467	82	84	15
Missouri	1,066	...	...	1,042	98	*23	2
Montana	205	...	...	197	96	*7	4
Nebraska	327	...	...	319	98	...	...
Nevada	143	...	...	125	88	16	11
New Hampshire	138	14	10	83	61	40	29
New Jersey	842	454	54	173	21	215	26
New Mexico	218	...	...	198	91	17	8
New York	1,938	625	32	996	51	317	16
North Carolina	1,180	206	17	622	53	351	30
North Dakota	171	...	...	168	98	...	...
Ohio	1,911	...	...	1,744	91	146	8
Oklahoma	795	...	...	771	97	*17	2
Oregon	688	49	7	431	63	207	30
Pennsylvania	1,456	217	15	1,019	70	219	15
Rhode Island	124	57	46	24	20	42	34

(See footnotes at end of table.)

Table 45. Fishermen and Days of Participation, by Type of Fishing and State of Residence: 1980 *(Continued)*

(U.S. population 16 years old and older. Numbers in thousands.)

State	Fishermen						
		Saltwater only		Freshwater only		Freshwater and saltwater	
	Total	Number	Percent	Number	Percent	Number	Percent
South Carolina	630	114	18	329	52	187	30
South Dakota	157	...	...	152	97	4	3
Tennessee	981	...	...	904	92	63	6
Texas	2,886	474	16	1,898	66	514	18
Utah	280	...	...	268	96	10	4
Vermont	119	...	...	104	88	13	11
Virginia	1,006	296	29	447	44	262	26
Washington	982	277	28	420	43	286	29
West Virginia	361	...	...	323	89	31	8
Wisconsin	1,226	...	...	1,175	96	42	3
Wyoming	145	...	...	138	95	7	4

State	Days of participation						
		Freshwater			Saltwater		
	Total	Number	Percent	Average	Number	Percent	Average
Total, all States	857,566	710,572	83	20	147,007	17	12
Alabama	19,972	19,018	95	21	954	5	6
Alaska	2,754	2,172	79	18	585	21	10
Arizona	6,344	6,042	95	15	303	5	6
Arkansas	13,881	13,840	100	24	*41	(Z)	*3
California	66,142	47,712	72	15	18,432	28	10
Colorado	10,257	10,063	98	14	195	2	4
Connecticut	9,889	6,123	62	20	3,773	38	14
Delaware	2,013	*848	42	22	1,157	57	13
District of Columbia	864	...	...	...	*292	34	*9
Florida	61,230	33,233	54	25	27,938	46	19
Georgia	25,643	23,803	93	20	1,840	7	7
Hawaii	3,261	396	12	17	2,865	88	19
Idaho	4,962	4,857	98	17	109	2	5
Illinois	36,868	36,235	98	20	633	2	4
Indiana	24,467	24,146	99	22	321	1	5
Iowa	13,220	13,061	99	19	...	...	...
Kansas	12,329	12,220	99	22	*106	1	*5
Kentucky	17,256	16,682	97	21	573	3	9
Louisiana	19,271	16,264	84	21	3,082	16	11
Maine	4,465	3,933	88	18	551	12	9

(See footnotes at end of table.)

Table 45. Fishermen and Days of Participation, by Type of Fishing and State of Residence: 1980 *(Continued)*

(U.S. population 16 years old and older. Numbers in thousands.)

State	Days of participation						
		Freshwater			Saltwater		
	Total	Number	Percent	Average	Number	Percent	Average
Maryland	8,381	3,752	45	12	4,639	55	11
Massachusetts	13,770	8,381	61	20	5,260	38	11
Michigan	41,678	40,919	98	23	706	2	5
Minnesota	19,548	19,506	100	16	*42	(Z)	*2
Mississippi	14,178	12,865	91	23	1,283	9	12
Missouri	19,895	19,810	100	19	*85	(Z)	*4
Montana	3,457	3,422	99	17	*36	1	*4
Nebraska	5,948	5,933	100	18	...	...	...
Nevada	2,197	2,141	97	15	57	3	3
New Hampshire	2,943	2,541	86	21	402	14	7
New Jersey	17,390	7,366	42	19	10,017	58	15
New Mexico	3,531	3,462	98	16	69	2	3
New York	38,067	23,316	61	18	14,822	39	16
North Carolina	23,343	18,888	81	19	4,461	19	8
North Dakota	2,622	2,612	100	15	...	...	...
Ohio	44,207	43,538	98	23	673	2	4
Oklahoma	18,013	17,903	99	23	*141	1	*6
Oregon	13,941	12,357	89	19	1,586	11	6
Pennsylvania	31,016	27,063	87	22	3,936	13	9
Rhode Island	3,174	1,513	48	23	1,661	52	17
South Carolina	15,770	11,991	76	23	3,923	25	13
South Dakota	2,648	2,639	100	17	9	(Z)	2
Tennessee	20,054	19,691	98	20	363	2	5
Texas	57,744	40,301	70	17	17,486	30	18
Utah	3,699	3,658	99	13	42	1	3
Vermont	2,493	2,433	98	21	60	2	4
Virginia	17,599	12,149	69	17	5,348	30	10
Washington	19,813	14,290	72	20	5,523	28	10
West Virginia	8,102	7,919	98	22	183	2	5
Wisconsin	24,560	24,340	99	20	221	1	4
Wyoming	2,694	2,654	99	18	40	1	6

* Estimate based on a small sample size.
... Sample size too small to report data reliably.
Z Less than .5 percent.

Table 46. Hunters and Days of Participation, by Type of Hunting and State of Residence: 1980

(U.S. population 16 years old and older. Numbers in thousands.)

State	All hunting					Big game				
	Hunters		Days			Hunters		Days		
	Number	Percent	Number	Percent	Average	Number	Percent	Number	Percent	Average
Total, all States	17,444	100	330,168	100	19	11,806	68	112,788	34	10
Alabama	457	3	10,051	3	22	317	69	4,229	42	13
Alaska	60	(Z)	922	(Z)	15	50	83	443	48	9
Arizona	190	1	3,544	1	19	100	52	689	19	7
Arkansas	378	2	8,626	3	23	292	77	2,698	31	9
California	821	5	11,961	4	15	376	46	2,951	25	8
Colorado	264	2	3,622	1	14	191	72	1,282	35	7
Connecticut	93	1	1,967	1	21	58	62	507	26	9
Delaware	31	(Z)	561	(Z)	18	21	69	144	26	7
District of Columbia	...	...	...	...	...	...	...	...	...	...
Florida	426	2	10,099	3	24	296	70	5,716	57	19
Georgia	476	3	7,383	2	16	340	71	4,080	52	12
Hawaii	20	(Z)	336	(Z)	17	17	84	162	48	9
Idaho	185	1	2,798	1	15	146	79	990	35	7
Illinois	454	3	8,956	3	20	136	30	922	10	7
Indiana	374	2	9,284	3	25	151	40	1,790	19	12
Iowa	340	2	5,557	2	16	83	24	609	11	7
Kansas	243	1	4,066	1	17	42	17	421	10	10
Kentucky	320	2	6,958	2	22	157	49	1,190	17	8
Louisiana	485	3	12,637	4	26	294	61	3,802	30	13
Maine	174	1	3,000	1	17	165	95	1,658	55	10
Maryland	198	1	3,243	1	16	147	74	1,093	34	7
Massachusetts	131	1	4,155	1	32	87	67	934	22	11
Michigan	996	6	18,128	5	18	880	88	8,686	48	10
Minnesota	556	3	8,730	3	16	378	68	2,209	25	6
Mississippi	385	2	11,055	3	29	282	73	4,689	42	17
Missouri	483	3	8,777	3	18	279	58	2,067	24	7
Montana	154	1	1,956	1	13	144	93	1,151	59	8
Nebraska	175	1	3,378	1	19	46	26	243	7	5
Nevada	65	(Z)	860	(Z)	13	33	51	237	28	7
New Hampshire	73	(Z)	1,264	(Z)	17	70	95	708	56	10
New Jersey	185	1	3,843	1	21	149	81	1,268	33	9
New Mexico	113	1	1,468	(Z)	13	90	80	396	27	4
New York	783	4	13,791	4	18	727	93	6,955	50	10
North Carolina	448	3	9,968	3	22	246	55	3,328	33	14
North Dakota	93	1	1,942	1	21	54	58	283	15	5
Ohio	671	4	13,170	4	20	335	50	3,282	25	10
Oklahoma	333	2	6,370	2	19	175	53	1,254	20	7
Oregon	325	2	4,790	1	15	294	90	2,837	59	10
Pennsylvania	1,129	6	18,998	6	17	1,053	93	8,121	43	8
Rhode Island	18	(Z)	424	(Z)	24	*9	48	*93	22	*11

(See footnotes at end of table.)

Table 46. Hunters and Days of Participation, by Type of Hunting and State of Residence: 1980 *(Continued)*

(U.S. population 16 years old and older. Numbers in thousands.)

State	All hunting					Big game				
	Hunters		Days			Hunters		Days		
	Number	Percent	Number	Percent	Average	Number	Percent	Number	Percent	Average
South Carolina	206	1	5,538	2	27	135	65	1,663	30	12
South Dakota	123	1	2,615	1	21	47	38	332	15	8
Tennessee	497	3	10,184	3	20	231	46	2,391	23	10
Texas	1,352	8	22,660	7	17	838	62	6,665	29	8
Utah	207	1	2,112	1	10	189	91	937	44	5
Vermont	93	1	2,261	1	24	90	96	981	43	11
Virginia	445	3	9,635	3	22	365	82	4,617	48	13
Washington	348	2	5,475	2	16	285	82	2,731	50	10
West Virginia	307	2	7,431	2	24	253	82	2,333	31	9
Wisconsin	637	4	11,462	3	18	555	87	5,032	44	9
Wyoming	115	1	1,650	1	14	107	92	912	55	9

State	Small game					Migratory birds				
	Hunters		Days			Hunters		Days		
	Number	Percent	Number	Percent	Average	Number	Percent	Number	Percent	Average
Total, all States	12,362	71	151,246	46	12	5,311	30	42,910	13	8
Alabama	328	72	3,872	39	12	178	39	1,549	15	9
Alaska	34	56	408	44	12	22	37	144	16	6
Arizona	153	81	2,074	59	14	114	60	820	23	7
Arkansas	289	76	4,054	47	14	105	28	1,166	14	11
California	610	74	6,463	54	11	445	54	3,062	26	7
Colorado	156	59	1,446	40	9	84	32	828	23	10
Connecticut	71	76	1,001	51	14	30	32	295	15	10
Delaware	21	67	256	46	12	15	47	128	23	9
District of Columbia	...	...	...	...	...	...	...	...	...	...
Florida	299	70	4,331	43	14	181	43	1,421	14	8
Georgia	282	59	2,582	33	9	150	32	50	11	6
Hawaii	10	48	161	48	17	...	...	...	...	...
Idaho	120	65	1,306	47	11	50	27	426	15	9
Illinois	410	90	5,310	59	13	145	32	1,692	19	12
Indiana	328	88	4,769	51	15	40	11	383	4	9
Iowa	318	94	3,920	71	12	58	17	479	9	8
Kansas	219	90	2,568	63	12	100	41	846	21	8
Kentucky	282	88	3,699	53	13	95	30	673	10	7
Louisiana	403	83	6,146	49	15	202	42	1,943	15	10
Maine	93	53	1,064	35	11	25	14	285	10	12

(See footnotes at end of table.)

Table 46. Hunters and Days of Participation, by Type of Hunting and State of Residence: 1980 *(Continued)*

(U.S. population 16 years old and older. Numbers in thousands.)

State	Small game					Migratory Birds				
	Hunters		Days			Hunters		Days		
	Number	Percent	Number	Percent	Average	Number	Percent	Number	Percent	Average
Maryland	126	64	1,379	43	11	72	37	700	22	10
Massachusetts	106	81	2,276	55	21	46	35	490	12	11
Michigan	559	56	7,541	42	13	180	18	1,614	9	9
Minnesota	402	72	4,469	51	11	220	40	1,805	21	8
Mississippi	299	78	4,488	41	15	152	39	1,124	10	7
Missouri	375	78	4,804	55	13	111	23	863	10	8
Montana	55	36	455	23	8	30	20	168	9	6
Nebraska	163	93	2,087	62	13	77	44	736	22	10
Nevada	48	74	471	55	10	22	33	111	13	5
New Hampshire	39	53	391	31	10	13	17	108	9	8
New Jersey	127	69	1,781	46	14	55	30	582	15	11
New Mexico	52	46	694	47	13	38	34	312	21	8
New York	407	52	4,654	34	11	129	16	780	6	6
North Carolina	359	80	4,810	48	13	173	39	1,204	12	7
North Dakota	67	72	847	44	13	51	54	444	23	9
Ohio	572	85	7,013	53	12	84	12	722	5	9
Oklahoma	282	85	3,909	61	14	91	27	769	12	8
Oregon	115	35	1,270	27	11	85	26	689	14	8
Pennsylvania	842	75	7,343	39	9	181	16	1,347	7	7
Rhode Island	14	76	241	57	18	*7	38	*102	24	*15
South Carolina	139	67	2,214	40	16	106	51	948	17	9
South Dakota	109	88	1,626	62	15	47	38	469	18	10
Tennessee	404	81	5,263	52	13	151	30	924	9	6
Texas	897	66	10,046	44	11	688	51	5,064	22	7
Utah	104	50	787	37	8	38	18	271	13	7
Vermont	47	51	770	34	16	13	14	242	11	19
Virginia	303	68	3,056	32	10	134	30	803	8	6
Washington	189	54	2,082	38	11	110	32	1,209	22	11
West Virginia	250	82	3,266	44	13	*10	3	*381	1	*4
Wisconsin	427	67	5,294	46	12	136	21	1,099	10	8
Wyoming	51	44	451	27	9	19	17	148	9	8

(See footnotes at end of table.)

Table 46. Hunters and Days of Participation, by Type of Hunting and State of Residence: 1980 *(Continued)*

(U.S. population 16 years old and older. Numbers in thousands.)

State	Other animals				
	Hunters		Days		
	Number	Percent	Number	Percent	Average
Total, all States	2,642	15	38,431	12	15
Alabama	59	13	738	7	12
Alaska	*4	7	72	8	*16
Arizona	*24	13	*257	7	*11
Arkansas	57	15	747	9	13
California	*56	7	*400	3	*7
Colorado	37	14	352	10	9
Connecticut	*19	20	*324	16	*17
Delaware	*3	10	*46	8	*15
District of Columbia	...	...	...	...	...
Florida	*44	10	*534	5	12
Georgia	*34	7	*774	10	23
Hawaii	...	...	...	...	...
Idaho	26	14	258	9	10
Illinois	89	20	1,499	17	17
Indiana	93	25	2,529	27	27
Iowa	57	17	637	11	11
Kansas	40	17	486	12	12
Kentucky	65	20	1,482	21	23
Louisiana	54	11	1,188	9	22
Maine	13	8	170	6	13
Maryland	*23	11	*145	4	*6
Massachusetts	*21	16	*815	20	*38
Michigan	97	10	925	5	10
Minnesota	55	10	437	5	8
Mississippi	37	10	760	7	21
Missouri	83	17	1,202	14	15
Montana	31	20	393	20	13
Nebraska	38	22	519	15	14
Nevada	*8	13	*104	12	*13
New Hampshire	11	15	104	8	9
New Jersey	36	19	413	11	11
New Mexico	14	12	201	14	15
New York	126	16	1,689	12	13
North Carolina	68	15	837	8	12
North Dakota	35	38	450	23	13
Ohio	157	23	2,334	18	15
Oklahoma	54	16	569	9	11
Oregon	32	10	264	6	8
Pennsylvania	224	20	2,817	15	13
Rhode Island	...	...	...	...	...
South Carolina	35	17	754	14	22
South Dakota	32	26	446	17	14
Tennessee	96	19	1,705	17	18
Texas	233	17	3,015	13	13
Utah	*15	7	*173	8	*11
Vermont	17	19	323	14	19
Virginia	99	22	1,493	16	15
Washington	*33	9	*287	5	*9
West Virginia	80	26	1,929	26	24
Wisconsin	54	9	518	5	10
Wyoming	18	16	292	18	16

* Estimate based on a small sample size.
... Sample size too small to report data reliably.
Z Less than .5 percent.

Table 47. Fishermen and Hunters, Days of Participation, and Expenditures, by State Where Activity Occurred: 1980

(U.S. population 16 years old and older. Numbers in thousands.)

State	Fishing											
	Fishermen						Days of participation					
	Total		Resident		Nonresident		Total		Resident		Nonresident	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total, all States	42,059	100	38,234	91	10,066	24	848,939	100	761,378	90	87,561	10
Alabama	1,156	100	890	77	267	23	21,874	100	19,045	87	2,830	13
Alaska	225	100	132	59	92	41	3,349	100	2,609	78	741	22
Arizona	502	100	350	70	152	30	6,399	100	4,980	78	1,419	22
Arkansas	896	100	574	64	321	36	15,277	100	13,069	86	2,209	14
California	3,758	100	3,496	93	262	7	60,467	100	58,322	96	2,146	4
Colorado	925	100	626	68	299	32	10,490	100	8,700	83	1,790	17
Connecticut	467	100	387	83	80	17	8,675	100	8,347	96	328	4
Delaware	224	100	87	39	137	61	2,396	100	1,671	70	725	30
District of Columbia	19	100	10	54	...	...	537	100	394	73	143	27
Florida	3,406	100	2,028	60	1,378	40	65,479	100	56,453	86	9,026	14
Georgia	1,284	100	1,135	88	149	12	23,794	100	22,221	93	1,573	7
Hawaii	244	100	153	63	91	37	3,276	100	3,018	92	258	8
Idaho	423	100	277	66	145	34	5,404	100	4,350	80	1,054	20
Illinois	1,560	100	1,409	90	150	10	29,123	100	28,036	96	1,088	4
Indiana	1,146	100	923	81	223	19	22,147	100	20,424	92	1,724	8
Iowa	646	100	592	92	54	8	11,074	100	10,743	97	332	3
Kansas	577	100	512	89	65	11	10,859	100	10,464	96	395	4
Kentucky	1,053	100	735	70	318	30	17,330	100	15,421	89	1,909	11
Louisiana	1,115	100	861	77	254	23	20,159	100	17,967	89	2,192	11
Maine	458	100	230	50	229	50	6,141	100	4,289	70	1,851	30
Maryland	776	100	538	69	238	31	8,419	100	7,186	85	1,233	15
Massachusetts	801	100	587	73	213	27	12,536	100	11,310	90	1,226	10
Michigan	2,287	100	1,738	76	549	24	44,481	100	39,697	89	4,783	11
Minnesota	1,661	100	1,177	71	484	29	21,520	100	17,971	84	3,548	16
Mississippi	762	100	550	72	213	28	15,467	100	13,337	86	2,130	14
Missouri	1,230	100	999	81	232	19	20,266	100	18,252	90	2,014	10
Montana	315	100	199	63	116	37	4,025	100	3,250	81	775	19
Nebraska	343	100	285	83	57	17	5,403	100	5,033	93	370	7
Nevada	217	100	109	50	108	50	1,836	100	1,406	77	430	23
New Hampshire	284	100	126	44	158	56	3,499	100	2,518	72	981	28
New Jersey	1,216	100	752	62	464	38	19,712	100	15,531	79	4,181	21
New Mexico	352	100	195	55	157	45	3,873	100	3,002	78	871	22
New York	2,110	100	1,800	85	310	15	36,281	100	34,305	95	1,976	5
North Carolina	1,582	100	1,122	71	460	29	23,708	100	20,747	88	2,961	12
North Dakota	154	100	139	90	*16	10	2,068	100	1,950	94	*118	6
Ohio	1,816	100	1,683	93	133	7	39,496	100	37,992	96	1,505	4
Oklahoma	1,009	100	769	76	240	24	18,990	100	17,122	90	1,868	10
Oregon	841	100	654	78	187	22	14,162	100	13,009	92	1,153	8
Pennsylvania	1,425	100	1,181	83	243	17	27,130	100	25,335	93	1,796	7
Rhode Island	222	100	117	53	105	47	3,597	100	2,834	79	763	21

(See footnotes at end of table.)

Table 47. Fishermen and Hunters, Days of Participation, and Expenditures, by State Where Activity Occurred: 1980 *(Continued)*

(U.S. population 16 years old and older. Numbers in thousands.)

State	Fishing											
	Fishermen						Days of participation					
	Total		Resident		Nonresident		Total		Resident		Nonresident	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
South Carolina	935	100	602	64	333	36	16,312	100	14,574	89	1,738	11
South Dakota	217	100	148	68	69	32	2,793	100	2,397	86	396	14
Tennessee	1,161	100	904	78	258	22	19,209	100	17,653	92	1,555	8
Texas	2,908	100	2,631	90	277	10	54,981	100	53,080	97	1,901	3
Utah	397	100	253	64	144	36	5,201	100	3,236	62	1,965	38
Vermont	183	100	113	62	69	38	2,790	100	2,323	83	468	17
Virginia	1,176	100	870	74	306	26	17,032	100	14,603	86	2,429	14
Washington	1,122	100	936	83	186	17	19,565	100	18,442	94	1,123	6
West Virginia	417	100	341	82	76	18	7,594	100	7,183	95	411	5
Wisconsin	1,825	100	1,176	64	649	36	29,415	100	23,295	79	6,121	21
Wyoming	337	100	132	39	205	61	3,323	100	2,285	69	1,038	31

State	Fishing (Continued)						Hunting					
	Expenditures[1] (dollars)						Hunters					
	Total		Resident		Nonresident		Total		Resident		Nonresident	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total, all States	7,117,247	100	5,560,900	78	1,556,346	22	17,444	100	16,572	95	2,103	12
Alabama	151,528	100	116,211	77	35,317	23	539	100	448	83	91	17
Alaska	61,205	100	35,027	57	26,178	43	64	100	59	93	*5	7
Arizona	75,547	100	61,913	82	13,634	18	221	100	186	84	35	16
Arkansas	138,303	100	79,563	58	58,741	42	471	100	372	79	98	21
California	787,397	100	749,947	95	37,451	5	734	100	705	96	29	4
Colorado	117,686	100	81,290	69	36,396	31	373	100	244	65	129	35
Connecticut	54,380	100	49,556	91	4,824	9	80	100	74	93	...	...
Delaware	18,941	100	9,563	50	9,378	50	37	100	*26	71	*11	29
District of Columbia	3,095	100	2,549	82	...	...	...	...	...	...	...	...
Florida	592,410	100	386,290	65	206,120	35	387	100	365	94	*21	6
Georgia	148,623	100	136,691	92	11,932	8	533	100	470	88	64	12
Hawaii	49,542	100	23,154	47	26,388	53	28	100	17	61	...	...
Idaho	53,695	100	31,729	59	21,967	41	220	100	181	82	39	18
Illinois	167,738	100	156,466	93	11,272	7	417	100	397	95	*21	5
Indiana	140,232	100	108,730	78	31,502	22	386	100	362	94	*24	6
Iowa	53,914	100	51,333	95	2,580	5	395	100	329	83	66	17
Kansas	65,558	100	61,139	93	4,419	7	333	100	234	70	99	30
Kentucky	119,611	100	91,972	77	27,639	23	392	100	313	80	79	20
Louisiana	153,529	100	129,366	84	24,164	16	516	100	464	90	52	10
Maine	60,631	100	17,970	30	42,662	70	214	100	174	81	40	19

(See footnotes at end of table.)

Table 47. Fishermen and Hunters, Days of Participation, and Expenditures, by State Where Activity Occurred: 1980 *(Continued)*

(U.S. population 16 years old and older. Numbers in thousands.)

State	Fishing (Continued)						Hunting					
	Expenditures[1] (dollars)						Hunters					
	Total		Resident		Nonresident		Total		Resident		Nonresident	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Maryland	86,559	100	70,019	81	16,540	19	187	100	162	87	25	13
Massachusetts	112,530	100	83,919	75	28,611	25	123	100	106	86	...	...
Michigan	324,439	100	260,968	80	63,471	20	1,067	100	986	92	81	8
Minnesota	226,467	100	158,693	70	67,774	30	566	100	543	96	23	4
Mississippi	91,839	100	73,551	80	18,288	20	490	100	379	77	111	23
Missouri	165,537	100	117,714	71	47,823	29	492	100	457	93	35	7
Montana	45,767	100	24,805	54	20,962	46	193	100	153	79	40	21
Nebraska	44,838	100	40,247	90	4,591	10	229	100	171	75	58	25
Nevada	33,104	100	19,061	58	14,042	42	65	100	53	82	...	...
New Hampshire	23,178	100	11,953	52	11,225	48	94	100	68	72	26	28
New Jersey	173,351	100	123,408	71	49,942	29	176	100	161	92	*14	8
New Mexico	53,726	100	33,515	62	20,211	38	114	100	102	89	...	...
New York	288,532	100	253,533	88	34,999	12	847	100	768	91	79	9
North Carolina	193,089	100	144,011	75	49,077	25	467	100	427	92	39	8
North Dakota	19,134	100	17,302	90	*1,832	10	106	100	87	82	*19	18
Ohio	188,559	100	174,178	92	14,381	8	653	100	633	97	*20	3
Oklahoma	140,374	100	115,588	82	24,786	18	356	100	316	89	41	11
Oregon	128,283	100	100,754	79	27,529	21	356	100	320	90	*36	10
Pennsylvania	120,871	100	99,791	83	21,080	17	1,266	100	1,112	88	154	12
Rhode Island	19,757	100	10,549	53	9,208	47	16	100	14	87	...	...
South Carolina	105,317	100	67,737	64	37,580	36	242	100	199	82	43	18
South Dakota	29,442	100	17,692	60	11,750	40	180	100	121	67	59	33
Tennessee	136,670	100	100,544	74	36,126	26	508	100	465	92	43	8
Texas	583,562	100	548,192	94	35,370	6	1,329	100	1,264	95	64	5
Utah	62,066	100	37,051	60	25,015	40	232	100	201	86	32	14
Vermont	16,758	100	8,323	50	8,435	50	141	100	93	66	48	34
Virginia	135,803	100	105,803	78	29,999	22	487	100	418	86	69	14
Washington	166,114	100	142,359	86	23,755	14	343	100	324	95	*19	5
West Virginia	45,464	100	41,172	91	4,292	9	386	100	304	79	82	21
Wisconsin	278,004	100	153,572	55	124,432	45	673	100	632	94	41	6
Wyoming	64,547	100	24,435	38	40,112	62	163	100	112	69	51	31

(See footnotes at end of table.)

Table 47. Fishermen and Hunters, Days of Participation, and Expenditures, by State Where Activity Occurred: 1980 *(Continued)*

(U.S. population 16 years old and older. Numbers in thousands.)

State	Hunting (Continued)											
	Days of participation						Expenditures[1] (dollars)					
	Total		Resident		Nonresident		Total		Resident		Nonresident	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total, all States	329,517	100	308,709	94	20,809	6	2,775,684	100	2,349,454	85	426,230	15
Alabama	10,735	100	9,816	91	918	9	78,491	100	58,551	75	19,939	25
Alaska	992	100	884	89	*108	11	16,112	100	14,753	92	1,359	8
Arizona	3,649	100	3,345	92	304	8	46,421	100	44,443	96	1,978	4
Arkansas	9,059	100	8,368	92	691	8	72,198	100	53,987	75	18,211	25
California	9,585	100	9,316	97	269	3	166,041	100	158,059	95	7,981	5
Colorado	4,251	100	3,286	77	965	23	99,827	100	40,104	40	59,723	60
Connecticut	1,608	100	1,529	95	...	...	7,861	100	7,383	94	...	...
Delaware	549	100	*499	91	*50	9	4,047	100	*2,799	69	*1,248	31
District of Columbia	...	...	...	...	...	...	...	...	...	...	...	...
Florida	9,465	100	9,141	97	*324	3	83,965	100	78,917	94	*5,047	6
Georgia	8,033	100	7,538	94	495	6	63,123	100	57,524	91	5,599	9
Hawaii	342	100	302	88	...	...	6,992	100	3,853	55	...	...
Idaho	3,135	100	2,613	83	523	17	36,737	100	25,258	69	11,480	31
Illinois	8,250	100	8,096	98	*154	2	37,273	100	35,090	94	*2,182	6
Indiana	9,081	100	8,953	99	*127	1	35,873	100	34,687	97	*1,186	3
Iowa	5,692	100	5,282	93	410	7	37,021	100	27,649	75	9,373	25
Kansas	4,347	100	3,823	88	523	12	42,042	100	31,333	75	10,709	25
Kentucky	6,896	100	6,496	94	400	6	31,984	100	28,816	90	3,168	10
Louisiana	12,146	100	11,925	98	222	2	82,374	100	76,314	93	6,060	7
Maine	3,294	100	2,949	90	345	10	19,310	100	10,412	54	8,898	46
Maryland	2,793	100	2,722	97	71	3	24,534	100	20,987	86	3,547	14
Massachusetts	3,348	100	3,093	92	...	...	16,840	100	15,797	94	...	...
Michigan	18,513	100	17,815	96	698	4	171,451	100	159,857	93	11,594	7
Minnesota	8,558	100	8,328	97	230	3	70,125	100	66,707	95	3,418	5
Mississippi	11,789	100	10,622	90	1,167	10	81,550	100	68,526	84	13,025	16
Missouri	8,369	100	8,095	97	275	3	44,597	100	40,411	91	4,186	9
Montana	2,248	100	1,920	85	328	15	37,968	100	20,857	55	17,111	45
Nebraska	3,732	100	3,188	85	544	15	36,742	100	25,474	69	11,268	31
Nevada	681	100	638	94	...	...	16,311	100	16,071	99	...	...
New Hampshire	1,389	100	1,155	83	234	17	11,807	100	5,618	48	6,190	52

(See footnotes at end of table.)

Table 47. Fishermen and Hunters, Days of Participation, and Expenditures, by State Where Activity Occurred: 1980 *(Continued)*

(U.S. population 16 years old and older. Numbers in thousands.)

State	Hunting (Continued)											
	Days of participation						Expenditures[1] (dollars)					
	Total		Resident		Nonresident		Total		Resident		Nonresident	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
New Jersey	3,627	100	3,388	93	*239	7	18,680	100	16,295	87	*2,385	13
New Mexico	1,366	100	1,293	95	...	...	14,596	100	13,684	94	...	...
New York	14,450	100	13,404	93	1,046	7	87,324	100	78,454	90	8,871	10
North Carolina	9,390	100	9,196	98	194	2	56,726	100	50,851	90	5,876	10
North Dakota	1,928	100	1,816	94	*113	6	17,706	100	15,031	85	*2,674	15
Ohio	12,217	100	11,974	98	*242	2	90,885	100	88,073	97	*2,811	3
Oklahoma	6,431	100	6,083	95	348	5	46,464	100	41,228	89	5,236	11
Oregon	4,836	100	4,598	95	*238	5	57,946	100	53,892	93	*4,055	7
Pennsylvania	19,689	100	18,555	94	1,133	6	110,113	100	89,548	81	20,565	19
Rhode Island	333	100	330	99	...	...	1,609	100	1,600	99	...	...
South Carolina	5,904	100	5,328	90	576	10	32,438	100	25,831	80	6,606	20
South Dakota	3,119	100	2,572	82	547	18	36,343	100	18,303	50	18,040	50
Tennessee	9,587	100	9,161	96	426	4	68,128	100	62,920	92	5,208	8
Texas	22,390	100	21,317	95	1,073	5	262,080	100	246,406	94	15,673	6
Utah	2,407	100	1,914	80	493	20	34,892	100	27,123	78	7,770	22
Vermont	2,741	100	2,204	80	537	20	19,295	100	8,951	46	10,344	54
Virginia	9,960	100	9,057	91	903	9	81,105	100	69,545	86	11,561	14
Washington	5,186	100	5,023	97	*162	3	73,232	100	66,756	91	*6,476	9
West Virginia	7,628	100	7,020	92	608	8	41,272	100	34,764	84	6,508	16
Wisconsin	11,775	100	11,251	96	523	4	91,000	100	85,175	94	5,825	6
Wyoming	2,019	100	1,487	74	532	26	53,788	100	24,599	46	29,190	54

* Estimate based on a small sample size.

... Sample size too small to report data reliably.

[1] Expenditures for travel, food, lodging, and fees only. Other expenditures were not recorded by State of purchase. Total expenditures do not equal the sum of comparable estimates in table 26 because of nonresponse.

Table 48. Participation of Sportsmen in Nonconsumptive Activities: 1980

(U.S. population 16 years old and older. Numbers in thousands.)

Activity	Fished or hunted			Fished only			Hunted only			Fished and hunted		
	Number	Percent of nonconsumptive users	Percent	Number	Percent of nonconsumptive users	Percent	Number	Percent of nonconsumptive users	Percent	Number	Percent of nonconsumptive users	Percent
Total participants	34,435	36.9	73.7	22,088	23.7	75.5	2,575	2.8	55.3	9,772	10.5	76.4
PRIMARY ACTIVITIES												
Total	30,121	36.2	64.5	19,457	23.4	66.5	2,188	2.6	47.0	8,477	10.2	66.3
Triptakers	12,173	42.2	26.1	7,046	24.4	24.1	967	3.4	20.8	4,160	14.4	32.5
Observe	12,114	42.2	25.9	7,002	24.4	23.9	967	3.4	20.8	4,145	14.5	32.4
Photograph	4,734	40.1	10.1	3,011	25.5	10.3	394	3.3	8.5	1,330	11.3	10.4
Feed	5,197	39.7	11.1	3,417	26.1	11.7	*316	2.4	6.8	1,464	11.2	11.4
Residential	28,629	35.9	61.3	18,724	23.5	64.0	1,955	2.5	42.0	7,950	10.0	62.2
Observe	20,490	36.7	43.9	13,060	23.4	44.6	1,519	2.7	32.6	5,911	10.6	46.2
Photograph	5,515	44.5	11.8	3,545	28.6	12.1	421	3.4	9.0	1,548	12.5	12.1
Feed birds	21,358	34.2	45.7	14,438	23.1	49.3	1,406	2.3	30.2	5,514	8.8	43.1
Feed other wildlife	8,113	38.9	17.4	5,408	26.0	18.5	495	2.4	10.6	2,209	10.6	17.3
Natural areas	4,149	40.9	8.9	2,407	23.7	8.2	*250	2.5	5.4	1,492	14.7	11.7
Plantings	4,559	36.5	9.8	2,793	22.4	9.5	*237	1.9	5.1	1,529	12.3	12.0
Public parks	4,525	33.6	9.7	3,089	22.9	10.6	*301	2.2	6.5	1,135	8.4	8.9
SECONDARY ACTIVITIES												
Total	33,211	37.6	71.1	21,358	24.2	73.0	2,455	2.8	52.8	9,397	10.6	73.5
Triptakers	28,369	40.9	60.7	18,394	26.5	62.8	2,022	2.9	43.4	7,954	11.5	62.2
Residential experiences	29,943	37.2	64.1	19,160	23.8	65.5	2,131	2.6	45.8	8,652	10.8	67.6

Note: Detail does not add to total because of multiple responses. The screening questionnaire was used to determine if the participant hunted or fished and was completed by the household respondent and not necessarily by the participant.

* Estimate based on a small sample size.

Nonconsumptive Wildlife Use

Table 49. Participants in Nonconsumptive Activities, by Region: 1980

(U.S. population 16 years old and older. Numbers in thousands. Percents based on regional population.)

Region of residence	U.S. population	Total		Primary						Secondary					
				Total		Nonresidential		Residential		Total		Nonresidential		Residential	
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total	169,942	93,249	54.9	83,173	48.9	28,822	17.0	79,670	46.9	88,272	51.9	69,407	40.8	80,475	47.4
New England	9,362	5,450	58.2	5,047	53.9	1,657	17.7	4,952	52.9	5,135	54.8	3,801	40.6	4,598	49.1
Middle Atlantic	27,867	13,512	48.5	12,348	44.3	4,111	14.8	11,872	42.6	12,288	44.1	9,165	32.9	11,195	40.2
East North Central	30,791	20,557	66.8	18,539	60.2	6,099	19.8	17,936	58.3	19,606	63.7	15,437	50.1	18,499	60.1
West North Central	12,774	8,149	63.8	7,357	57.6	3,000	23.5	6,783	53.1	7,929	62.1	6,344	49.7	7,340	57.5
South Atlantic	28,066	12,726	45.3	11,562	41.2	3,739	13.3	11,270	40.2	11,848	42.2	8,869	31.6	11,050	39.4
East South Central	10,792	4,752	44.0	4,294	39.8	1,173	10.9	4,117	38.2	4,523	41.9	3,243	30.0	4,179	38.7
West South Central	17,550	8,302	47.3	7,105	40.5	1,842	10.5	6,837	39.0	7,977	45.5	6,398	36.5	6,998	39.9
Mountain	8,415	5,315	63.2	4,574	54.4	2,125	25.2	4,133	49.1	4,991	59.3	4,290	51.0	4,307	51.2
Pacific	24,326	14,485	59.5	12,347	50.8	5,076	20.9	11,770	48.4	13,976	57.5	11,861	48.8	12,309	50.6

Note: Detail does not add to total because of multiple responses.

Table 50. Primary Nonresidential Participants and Trips, by Region: 1980

(U.S. population 16 years old and older. Percents based on primary nonresidential participants in region.)

Region of residence	Participants (thousands)					Trips					
		In-State		In other States							
	Total[1]	Number	Percent	Number	Percent	Total[2] (thousands)	1 day (thousands)	2 or more days (thousands)	Average per participant	In-State (thousands)	In other States (thousands)
Total	28,822	26,032	90.3	6,854	23.8	309,666	263,780	45,886	10.74	274,893	30,707
New England	1,657	1,512	91.2	545	32.9	15,943	14,066	1,877	9.62	13,995	1,828
Middle Atlantic	4,111	3,744	91.1	846	20.6	38,254	31,942	6,312	9.31	35,293	2,471
East North Central	6,099	5,367	88.0	1,656	27.1	75,511	66,928	8,582	12.38	66,230	8,907
West North Central	3,000	2,680	89.3	632	21.1	33,784	31,638	2,146	11.26	31,621	2,060
South Atlantic	3,739	3,194	85.4	1,187	31.8	39,411	35,185	4,226	10.54	33,220	6,052
East South Central	1,173	1,068	91.0	*269	22.9	12,462	11,556	907	10.62	10,857	*1,605
West South Central	1,842	1,693	91.9	*280	15.2	26,001	22,440	3,561	14.11	24,283	*832
Mountain	2,125	1,936	91.1	486	22.9	21,183	17,954	3,230	9.97	18,358	2,702
Pacific	5,076	4,838	95.3	953	18.8	47,117	32,072	15,045	9.28	41,036	4,249

Note: Detail does not add to total because of multiple responses.
* Estimate based on a small sample size.
[1] Includes 1,031 thousand participants taking trips to other countries, 3.6 percent of total primary nonresidential participants.
[2] Includes 4,067 thousand trips to other countries.

Table 51. Days of Participation in Primary Nonresidential Activities, by Region: 1980

(U.S. population 16 years old and older)

Region of residence	Total		Observing		Photographing		Feeding		Scouting[1]	
	Number (thousands)	Percent	Number (thousands)	Average per observer	Number (thousands)	Average per photographer	Number (thousands)	Average per feeder	Number (thousands)	Average per sportsman
Total	377,446	100.0	374,117	13.13	74,473	6.41	128,533	9.96	24,242	7.66
New England	18,673	4.9	17,472	10.54	3,497	5.56	7,375	7.70	866	5.64
Middle Atlantic	51,226	13.6	49,229	12.28	9,169	5.81	17,704	9.22	6,341	11.66
East North Central	87,033	22.3	87,033	14.42	13,776	6.18	29,416	9.98	7,191	9.56
West North Central	40,020	10.6	37,079	12.56	5,690	6.16	5,460	6.11	1,559	6.66
South Atlantic	49,540	13.1	47,395	12.73	9,648	5.61	19,332	11.87	1,873	7.66
East South Central	14,537	3.3	14,537	12.39	1,935	4.75	3,899	8.19	721	3.45
West South Central	28,000	7.4	27,647	15.25	5,800	7.88	12,233	14.67	2,178	6.85
Mountain	25,733	6.4	25,733	12.38	4,489	5.32	4,923	6.87	1,516	5.18
Pacific	69,015	18.3	67,991	13.47	20,471	8.02	28,191	11.12	1,998	4.79

Note: Detail does not add to total because of multiple responses.
[1] Includes scouting in other countries.

Table 52. Public Areas Visited by Primary Nonresidential Participants, by Region: 1980

(U.S. population 16 years old and older. Percents based on primary nonresidential participants in region)

Region of residence	Total primary nonresidential participants (thousands)	Any public area		Local or regional park or natural area		State-owned area		National Wildlife Refuge		Other Federal area	
		Number (thousands)	Percent	Number (thousands)	Percent	Number (thousands)	Percent	Number (thousands)	Percent	Number (thousands)	Percent
Total	28,822	21,731	75.4	9,820	34.1	12,545	43.5	4,561	15.8	6,283	21.8
New England	1,657	1,227	74.1	421	25.4	921	55.6	*229	13.8	*242	14.6
Middle Atlantic	4,111	2,916	71.0	1,222	29.7	1,975	48.0	537	13.1	519	12.6
East North Central	6,099	4,846	79.5	2,571	42.1	2,800	45.9	996	16.3	664	10.9
West North Central	3,000	2,060	68.7	1,048	34.9	1,216	40.5	*382	12.7	*377	12.6
South Atlantic	3,739	2,827	75.6	1,207	32.3	1,608	43.0	681	18.2	838	22.4
East South Central	1,173	689	58.7	*209	17.8	*345	29.4	...	...	*169	14.4
West South Central	1,842	1,088	59.1	*375	20.3	461	25.0	*285	15.5	*274	14.9
Mountain	2,125	1,725	81.2	577	27.2	735	34.6	*264	12.4	970	45.7
Pacific	5,076	4,353	85.7	2,192	43.2	2,484	48.9	1,068	21.0	2,228	43.9

Note: Detail does not add to total because of multiple responses.
* Estimate based on a small sample size.
... Sample size too small to report data reliably.

Table 53. Sites Visited by Primary Nonresidential Participants, by Region: 1980

(U.S. population 16 years old and older. Percents based on primary nonresidential participants in region.)

Region of residence	Total participants (thousands)	Woodland	Brush-covered area	Open field	Marsh, wetland or swamp	Lake or streamside	Oceanside	Manmade area
Total	28,822	72.5	44.1	43.7	27.9	51.8	18.8	17.4
New England	1,657	76.3	37.3	46.6	45.7	51.0	35.9	*12.2
Middle Atlantic	4,111	77.0	43.5	44.4	30.0	50.1	15.5	15.5
East North Central	6,099	81.4	41.1	50.3	32.5	55.4	6.4	21.4
West North Central	3,000	70.1	45.0	49.2	24.7	57.0	*6.7	*12.8
South Atlantic	3,739	74.0	41.3	42.1	35.4	46.8	22.1	16.7
East South Central	1,173	83.6	50.6	44.5	...	39.2	...	*17.3
West South Central	1,842	62.0	51.7	42.4	23.5	51.2	*13.8	*17.8
Mountain	2,125	66.3	55.0	37.4	*13.5	50.7	...	*15.9
Pacific	5,076	61.1	42.9	35.4	23.2	53.1	44.9	19.3

Note: Detail does not add to total because of multiple responses.
* Estimate based on a small sample size.
... Sample size too small to report data reliably.

Table 54. Wildlife Observed, Photographed, or Fed by Primary Nonresidential Participants, by Region: 1980

(U.S. population 16 years old and older. Percents based on primary nonresidential participants in region.)

Region of residence	Total participants (thousands)	Songbirds	Birds of prey	Waterfowl	Shorebirds	Upland game birds	Deer	Elk	Bears	Coyotes or wolves	Other large mammals	Squirrels or chipmunks	Rabbits or hares	Other small mammals	Marine mammals	Butterflies	Spiders, beetles, or other insects	Trout or salmon	Other fish	Reptiles and amphibians	Other
Total	28,822	62.9	49.5	65.7	29.6	35.3	52.3	6.9	7.8	11.5	8.2	68.7	52.2	33.2	10.1	42.3	39.9	15.0	27.8	41.2	6.0
New England	1,657	64.2	45.3	75.6	40.3	38.2	31.7	...	...	...	*10.4	67.2	45.4	40.8	*13.7	47.5	42.1	*20.1	26.0	37.1	...
Middle Atlantic	4,111	58.8	40.9	63.7	28.9	40.7	61.2	...	*5.9	...	*4.1	71.7	58.0	36.5	*5.2	35.7	35.1	17.1	33.6	36.6	*7.8
East North Central	6,099	66.1	46.8	77.3	23.5	38.0	54.6	*4.1	8.3	6.7	*5.4	75.9	59.8	36.9	*3.3	45.9	41.3	11.2	32.8	43.1	*2.6
West North Central	3,000	56.9	46.7	66.7	27.1	39.5	54.7	*11.3	...	16.7	*12.3	68.9	52.5	31.6	...	45.8	35.0	*7.6	28.0	38.5	*9.7
South Atlantic	3,739	64.1	49.3	60.1	31.1	33.2	49.3	*5.2	10.7	...	...	66.4	50.8	35.6	16.9	41.9	39.4	10.9	27.7	46.1	*6.6
East South Central	1,173	65.8	47.0	56.0	*15.8	*30.5	67.4	...	...	...	...	67.3	44.8	*27.8	...	41.7	36.7	...	*21.5	40.7	...
West South Central	1,842	64.6	46.2	53.6	22.7	29.1	49.1	...	...	*14.6	...	52.9	47.1	32.5	...	35.1	34.5	...	*19.7	34.9	*12.6
Mountain	2,125	60.6	61.4	61.1	19.0	28.0	58.1	18.3	...	25.2	25.3	63.3	49.5	21.2	...	37.2	40.8	31.1	*14.4	37.7	...
Pacific	5,076	64.4	60.0	62.1	44.6	31.9	45.2	12.2	10.5	23.6	10.2	67.9	46.4	29.5	24.3	44.8	47.1	23.3	27.7	45.9	*4.8

Note: Detail does not add to total because of multiple responses.
* Estimate based on a small sample size.
... Sample size too small to report data reliably.

Table 55. Expenditures for Primary Nonresidential Activities, by Region: 1980

(U.S. population 16 years old and older. Percents and averages based on primary nonresidential participants. Excludes expenditures outside of United States.)

Region of residence	Total participants (thousands)	Spenders		Amount (thousands of dollars)	Average (dollars)	Expenditures per day (dollars)
		Number (thousands)	Percent in region			
Total	28,822	25,675	89.1	4,015,952	139.33	10.64
New England	1,657	1,503	90.7	212,825	128.44	11.40
Middle Atlantic	4,111	3,535	86.0	530,776	129.13	10.36
East North Central	6,099	5,447	89.3	849,260	139.25	10.07
West North Central	3,000	2,586	86.2	183,603	61.19	4.59
South Atlantic	3,739	3,288	88.0	558,203	149.30	11.27
East South Central	1,173	994	84.7	92,742	79.03	7.38
West South Central	1,842	1,711	92.9	267,526	145.21	9.55
Mountain	2,125	1,901	89.5	307,261	144.61	12.76
Pacific	5,076	4,709	92.8	1,013,757	199.70	14.69

Table 56. Expenditures for Primary Nonresidential Activities, by Type: 1980

(U.S. population 16 years old and older.)

Type of expenditure	Total (thousands of dollars)	Percent	Average per participant (dollars)
Total	4,015,952	100.0	139.33
Food and drink	1,450,550	36.1	50.33
Lodging	513,968	12.8	17.83
Transportation:			
Public	381,808	9.5	13.25
Private	1,541,253	38.4	53.47
Guide fees	*13,442	0.3	0.47
Pack trip or package fees	*12,271	0.3	0.43
Land-use fees:			
Public	39,183	1.0	1.36
Private	*11,248	0.3	0.39
Equipment rental	52,230	1.3	1.81

* Estimate based on a small sample size.

Table 57. Trips Taken by Secondary Nonresidential Participants, by Region: 1980

(U.S. population 16 years old and older. Numbers in thousands. Percents based on secondary nonresidential participants in region.)

Region of residence	Total participants	1-10		11-20		21-30		31-50		More than 50	
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total	69,407	36,432	52.5	11,407	16.4	4,874	7.0	3,539	5.1	12,995	18.7
New England	3,801	2,193	57.7	634	16.7	*184	4.8	*165	4.3	626	16.5
Middle Atlantic	9,165	5,129	56.0	1,391	15.2	742	8.1	475	5.2	1,400	15.3
East North Central	15,437	8,003	51.8	2,531	16.4	1,106	7.2	1,051	6.8	2,687	17.4
West North Central	6,344	3,314	52.2	1,212	19.1	413	6.5	*352	5.6	1,052	16.6
South Atlantic	8,869	4,628	52.2	1,281	14.4	618	7.0	412	4.6	1,887	21.3
East South Central	3,243	1,638	50.5	737	22.7	. . .	. . .	*190	5.9	525	16.2
West South Central	6,398	3,586	56.1	888	13.9	463	7.2	*226	3.5	1,220	19.1
Mountain	4,290	2,403	56.0	551	12.8	*268	6.2	. . .	. . .	936	21.8
Pacific	11,861	5,537	46.7	2,183	18.4	930	7.8	535	4.5	2,661	22.4

Note: Detail does not add to total because of nonresponse.
* Estimate based on a small sample size.
. . . Sample size too small to report data reliably.

Table 58. Purpose of Trip and Importance of Wildlife for Secondary Nonresidential Participants, by Region: 1980

(U.S. population 16 years old and older. Percents based on secondary nonresidential participants in region.)

Region of residence	Total participants (thousands)	Driving for pleasure	Boating or canoeing	Camping	Fishing	Hunting	Picnicking	Off-road vehicle driving	Tennis, golf, and other outdoor sports	Walking, hiking, backpacking, or cross-country skiing	Swimming	Other	Presence of wildlife was important[1]
Total	69,407	67.6	21.2	24.9	27.9	12.3	38.9	10.2	15.3	41.9	15.7	17.6	60.8
New England	3,801	60.0	17.4	22.2	21.2	14.6	30.7	*7.4	13.7	48.1	18.7	19.7	61.2
Middle Atlantic	9,165	69.2	17.0	21.3	18.2	12.1	38.9	9.6	15.6	40.4	16.8	16.6	60.1
East North Central	15,437	70.4	26.3	24.5	27.9	10.4	41.1	9.4	18.6	46.5	18.2	15.8	62.2
West North Central	6,344	68.2	22.0	24.4	35.9	16.2	46.0	9.4	15.7	44.2	12.2	14.7	64.3
South Atlantic	8,869	64.4	20.5	17.4	26.3	9.5	35.1	7.9	16.1	39.2	16.3	18.4	59.7
East South Central	3,243	63.9	23.4	20.6	29.1	13.0	28.5	*6.5	*11.7	34.6	12.5	19.2	58.2
West South Central	6,398	57.8	19.7	19.8	37.0	15.4	30.9	9.0	9.9	28.4	14.0	21.1	56.5
Mountain	4,290	72.0	17.4	35.0	34.9	15.5	38.3	19.7	12.1	39.1	10.9	13.6	58.1
Pacific	11,861	71.6	20.5	35.0	26.8	10.9	44.8	13.0	15.8	46.0	15.5	20.4	62.2

Note: Detail does not add to total because of multiple responses.
* Estimate based on a small sample size.
[1] Only one yes response per participant included in total. The question read: Was the presence of wildlife an important reason for selecting the place(s) you visited when_____in 1980?

Table 59. Public Areas Visited by Secondary Nonresidential Participants, by Region: 1980

(U.S. population 16 years old and older. Numbers in thousands. Percents based on secondary nonresidential participants in region.)

Region of residence	Total participants	Any public area		Local or regional park or natural area		State-owned area		National wildlife refuge		Other Federal area	
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total	69,407	48,897	70.4	25,103	36.2	30,529	44.0	8,264	11.9	18,297	26.4
New England	3,801	2,557	67.3	1,468	38.6	1,405	37.0	467	12.3	932	24.5
Middle Atlantic	9,165	5,993	65.4	3,051	33.3	4,193	45.8	888	9.7	1,581	17.3
East North Central	15,437	10,719	69.4	5,943	38.5	7,124	46.1	1,285	8.3	2,003	13.0
West North Central	6,344	4,422	69.7	2,503	39.5	2,815	44.4	904	14.3	1,190	18.8
South Atlantic	8,869	5,874	66.2	2,498	28.2	3,296	37.2	1,230	13.9	2,333	26.3
East South Central	3,243	2,157	66.5	737	22.7	1,288	39.7	391	12.0	742	22.9
West South Central	6,398	3,805	59.5	1,804	28.2	2,114	33.0	649	10.1	1,450	22.7
Mountain	4,290	3,571	83.2	1,634	38.1	1,936	45.1	400	9.3	2,252	52.5
Pacific	11,861	9,799	82.6	5,465	46.1	6,358	53.6	2,050	17.3	5,813	49.0

Note: Detail does not add to total because of multiple responses.

Table 60. Days Observing and Photographing Wildlife by Primary Residential Participants, by Region: 1980

(U.S. population 16 years old and older. Percents based on participants in region.)

Region of residence	Observers					Photographers					
	Number (thousands)	Percent of population	Percent			Number (thousands)	Percent of population	Percent			Average
			1-10 days	11-50 days	51 or more days			1-5 days	6-20 days	21 or more days	
Total	55,871	32.9	19.7	25.3	54.3	12,401	7.3	70.8	22.9	5.5	7.86
New England	3,590	38.4	17.8	23.7	58.4	885	9.4	69.2	*22.4	...	8.01
Middle Atlantic	8,059	28.9	18.3	25.6	55.9	1,806	6.5	66.1	23.3	*9.7	9.59
East North Central	12,455	40.5	19.8	25.1	54.0	2,631	8.5	79.2	*18.4	...	6.24
West North Central	4,894	38.3	24.0	25.6	50.2	1,086	8.5	77.7	*16.6	...	5.45
South Atlantic	7,886	28.1	21.3	21.7	56.1	1,687	6.0	75.3	*18.4	...	9.75
East South Central	2,637	24.4	16.8	31.1	49.9	447	4.1	*58.9	...	...	8.22
West South Central	4,849	27.6	19.3	29.1	50.9	979	5.6	78.2	*18.4	...	6.29
Mountain	2,989	35.5	21.2	29.0	48.3	817	9.7	72.9	*23.8	...	3.90
Pacific	8,510	35.0	18.4	24.1	57.2	2,062	8.5	56.1	36.4	*7.6	10.30

Note: Detail does not add to total because of nonresponse.
* Estimate based on a small sample size.
... Sample size too small to report data reliably.

Table 61. Wildlife Observed by Primary Residential Participants, by Region: 1980

(U.S. population 16 years old and older. Percents based on observers in region.)

Region of residence	Total observers (thousands)	Songbirds	Birds of prey	Waterfowl	Shorebirds	Upland game birds	Deer	Coyotes or wolves	Other large mammals	Squirrels or chipmunks	Rabbits or hares	Raccoons	Other small mammals	Butterflies	Spiders, beetles, or other insects	Fish	Reptiles and amphibians	Other
Total	55,871	89.8	30.8	30.2	11.1	24.3	19.2	4.1	1.6	69.7	51.8	20.0	17.4	50.3	42.8	10.1	31.9	6.4
New England	3,590	93.6	27.5	37.5	15.8	24.8	14.9	...	...	80.3	48.5	29.8	29.8	48.8	43.7	11.2	33.5	*7.2
Middle Atlantic	8,059	91.9	27.0	30.6	11.9	27.4	23.8	...	...	74.8	57.0	28.1	21.0	44.0	41.1	11.5	24.2	*4.4
East North Central	12,455	91.3	29.2	35.6	7.6	23.3	23.1	*1.4	...	80.4	68.7	26.5	23.1	55.0	44.8	11.2	30.2	5.1
West North Central	4,894	91.1	30.8	33.9	*7.3	31.8	28.1	*6.8	...	77.4	64.7	21.9	18.2	49.5	39.2	9.8	26.7	*3.9
South Atlantic	7,886	90.3	28.1	26.7	14.8	19.6	13.5	...	...	74.3	54.1	15.3	16.0	47.3	39.2	12.2	33.4	6.1
East South Central	2,637	88.9	31.2	20.1	...	22.2	15.4	...	...	74.9	60.0	17.3	17.2	53.1	36.4	*6.2	31.4	...
West South Central	4,849	89.0	24.3	20.3	*5.1	18.2	15.6	*6.1	...	60.2	39.1	11.8	*6.2	46.7	31.7	*7.6	33.4	*6.9
Mountain	2,989	81.9	32.0	32.9	*8.8	27.1	16.6	15.1	...	52.7	34.7	...	*12.3	54.1	49.3	...	41.6	*11.2
Pacific	8,510	86.6	43.8	27.9	18.3	25.6	15.3	10.3	*3.9	46.0	24.9	13.3	9.3	53.4	52.7	9.8	38.5	9.9

Note: Detail does not add to total because of multiple responses. * Estimate based on a small sample size. ... Sample size too small to report data reliably.

Table 62. Wildlife Photographed by Primary Residential Participants: 1980

(U.S. population 16 years old and older.)

Type of wildlife	Photographers	Percent
Total	12,401	100.0
Songbirds	6,615	53.3
Birds of prey	1,251	10.1
Waterfowl	2,021	16.3
Shorebirds	780	6.3
Upland game birds	675	5.4
Deer	1,182	9.5
Coyotes and wolves	...	...
Other large mammals	*186	1.5
Squirrels and chipmunks	3,888	31.4
Rabbits and hares	1,918	15.5
Raccoons	717	5.8
Other small mammals	531	4.3
Butterflies	1,232	9.9
Spiders, beetles, or other insects	806	6.5
Fish	466	3.8
Reptiles and amphibians	710	5.7
Other	527	4.3

Note: Detail does not add to total because of multiple responses.
* Estimate based on a small sample size.
... Sample size too small to report data reliably.

Table 63. Feeding Wild Birds and Other Wildlife by Primary Residential Participants, by Region: 1980

(U.S. population 16 years old and older. Percents based on regional population.)

Region of residence	Fed wild birds			Maintained bird feeders (percent of all feeders)	Type of feed used (percent of all feeders)					Fed other wildlife	
	Number (thousands)	Percent of population	Average months		Seed	Suet	Sugar water for hummingbirds	Crumbs and scraps	Other	Number (thousands)	Percent of population
Total	62,463	36.8	6.28	43.1	55.9	16.2	6.5	73.8	10.9	20,833	12.3
New England	4,200	44.9	6.29	56.6	66.3	33.5	...	72.9	*7.3	1,150	12.3
Middle Atlantic	9,429	33.8	6.82	43.2	59.6	22.3	...	80.2	8.3	3,613	13.0
East North Central	14,757	47.9	5.70	45.1	58.7	20.7	*1.5	74.7	12.8	5,732	18.6
West North Central	4,908	38.4	5.16	50.0	62.6	18.6	*5.4	61.2	13.2	1,826	14.3
South Atlantic	9,182	32.7	6.88	40.6	54.1	10.2	*2.7	75.7	11.9	3,052	10.9
East South Central	3,351	31.0	5.70	27.9	40.3	*7.9	...	83.7	*9.8	1,064	9.9
West South Central	5,499	31.3	6.66	34.3	48.7	8.7	12.6	79.8	10.0	1,654	9.4
Mountain	2,686	31.9	6.05	40.7	51.2	*9.5	16.1	68.6	16.3	875	10.4
Pacific	8,451	34.7	6.74	43.7	52.3	8.3	23.4	64.9	9.0	1,868	7.7

Note: Detail does not add to total because of multiple responses.
* Estimate based on a small sample size.
... Sample size too small to report data reliably.

Table 64. Primary Residential Participants Maintaining Natural Areas and Plantings and Visiting Public Parks, by Region: 1980

Region of residence	Maintain natural areas		Maintain plantings		Visit public parks	
	Number	Percent of population	Number	Percent of population	Number	Percent of population
Total	10,146	6.0	12,476	7.3	13,477	7.9
New England	887	9.5	895	9.6	886	9.5
Middle Atlantic	1,615	5.8	1,799	6.5	2,374	8.5
East North Central	2,295	7.5	2,683	8.7	2,856	9.3
West North Central	1,055	8.3	1,264	9.9	1,444	11.3
South Atlantic	1,348	4.8	1,795	6.4	1,336	4.8
East South Central	710	6.6	522	4.8	*233	*2.2
West South Central	696	4.0	851	4.9	874	5.0
Mountain	403	4.8	643	7.6	592	7.0
Pacific	1,136	4.7	2,024	8.3	2,882	11.8

* Estimate based on a small sample size.

Table 65. Equipment Expenditures and Ownership by Participants in Nonconsumptive Activities, by Type of Equipment: 1980

(U.S. population 16 years old and older. Numbers in thousands. Excludes expenditures outside of United States.)

Type of equipment	Purchased						Owned		Available		Primarily for nonconsumptive use	
	Total			Purchased primarily for nonconsumptive use								
	Spenders (thousands)	Percent of total nonconsumptive users	Amount (thousands of dollars)	Spenders (thousands)	Percent of total nonconsumptive users	Amount (thousands of dollars)	Owners (thousands)	Percent of total nonconsumptive users	Participants (thousands)	Percent of total nonconsumptive users	Participants (thousands)	Percent of total using item
Total	43,653	46.8	10,652,646	39,169	42.0	2,609,960	56,616	60.7	28,785	30.9	21,948	30.2
Field guides	1,787	1.9	17,960	1,787	1.9	17,960	6,913	7.4	2,307	2.5	(NA)	(NA)
Binoculars	2,471	2.6	133,020	1,417	1.5	79,341	25,876	27.7	8,865	9.5	15,852	42.9
Spotting scopes	*168	0.2	*8,291	...	...	...	2,384	2.6	1,521	1.6	1,621	39.8
Cameras	4,367	4.7	701,773	1,090	1.2	193,450	32,446	34.8	7,925	8.5	5,087	11.7
Special lenses	1,524	1.6	247,205	625	0.7	110,476	5,535	5.9	2,499	2.7	2,602	27.8
Other photographic equipment	1,404	1.5	123,556	424	0.5	43,410	5,081	5.4	2,196	2.4	1,627	19.1
Film and developing	16,063	17.2	739,495	16,063	17.2	739,495	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Satchels, day packs, and carrying cases	2,203	2.4	49,877	949	1.0	20,768	8,275	8.9	2,471	2.6	3,298	26.4
Special clothing	2,812	3.0	172,498	1,525	1.6	98,501	8,321	8.9	2,021	2.2	4,200	34.2
Birdseed	25,959	27.8	517,053	25,959	27.8	517,053	(NA)	(NA)	4,064	4.4	(NA)	(NA)
Birdfeeders	5,969	6.4	54,741	5,969	6.4	54,741	15,934	17.1	3,377	3.6	(NA)	(NA)
Birdhouses or nest boxes	1,652	1.8	20,237	1,652	1.8	20,237	8,286	8.9	1,729	1.9	(NA)	(NA)
Birdbaths	1,916	2.1	25,899	1,916	2.1	25,899	8,840	9.5	1,561	1.7	(NA)	(NA)
Tents and tarps	2,819	3.0	208,323	637	0.7	44,075	14,537	15.6	9,045	9.7	3,413	13.4
Frame packs and backpacking equipment	1,727	1.9	88,478	533	0.6	38,578	10,711	11.5	4,721	5.1	2,983	18.4
Other camping equipment	4,362	4.7	337,150	968	1.0	60,901	17,582	18.9	8,139	8.7	3,651	13.2
Snowshoes and skis	1,675	1.8	245,960	*314	0.3	*26,710	5,768	6.2	2,512	2.7	703	7.5
Travel or tent trailer	458	0.5	864,244	...	...	...	3,338	3.6	3,396	3.6	680	9.6
Pickup camper or van	1,335	1.4	4,734,384	*191	0.2	*471,502	6,465	6.9	5,080	5.4	938	7.6
Motorhome	*235	0.3	*1,324,266	...	...	...	1,120	1.2	2,043	2.2	*275	8.3
Other	1,293	1.4	38,239	641	0.7	26,502	523	0.6	*244	0.3	1,188	66.5

* Estimate based on a small sample size.
... Sample size too small to report data reliably.
NA Not available.

Table 66. Travel Expenditures by Primary Nonresidential Participants and Equipment Expenditures by Participants in Nonconsumptive Activities, by Region: 1980

(U.S. population 16 years old and older. Excludes expenditures outside of United States.)

Region of residence	Travel[1]				Equipment							
					Total				Primarily for nonconsumptive use			
	Spenders (thousands)	Percent of primary nonresidential participants in region	Amount (thousands of dollars)	Average per primary nonresidential participant (dollars)	Spenders (thousands)	Percent of nonconsumptive users in region	Amount (thousands of dollars)	Percent of total expenditures	Spenders (thousands)	Percent of nonconsumptive users in region	Amount (thousands of dollars)	Percent of total expenditures
Total	25,675	89.1	4,015,952	139.33	43,653	46.8	10,652,646	100.0	39,169	42.0	2,609,960	100.0
New England	1,503	90.7	212,825	128.44	2,840	52.1	242,732	2.3	2,568	47.1	147,029	5.6
Middle Atlantic	3,535	86.0	530,776	129.13	6,206	45.9	1,275,807	12.0	5,717	42.3	350,558	13.4
East North Central	5,447	89.3	849,260	139.25	9,992	48.6	1,622,271	15.2	8,973	43.6	359,792	13.8
West North Central	2,589	86.2	183,603	61.19	3,406	41.8	769,584	7.2	3,127	37.1	132,954	5.1
South Atlantic	3,288	88.0	558,203	149.36	5,904	46.4	911,674	8.6	5,511	43.3	292,766	11.2
East South Central	994	84.7	92,742	79.03	1,779	37.4	815,047	7.7	1,597	33.6	330,522	12.7
West South Central	1,711	92.9	267,526	145.21	3,404	41.0	890,876	8.4	3,068	37.0	204,223	7.8
Mountain	1,901	89.5	307,261	144.61	2,357	44.3	303,301	2.8	1,959	36.9	80,973	3.1
Pacific	4,709	92.8	1,013,757	199.70	7,767	53.6	3,821,353	35.9	6,749	46.6	711,144	27.2

[1] Includes food and drink, lodging, transportation, guide fees, pack trip or package fees, land-use fees, and equipment rental.

Table 67. Membership in Wildlife-Related Organizations and Publications Readership by Participants in Nonconsumptive Activities, by Region: 1980

(U.S. population 16 years old and older. Numbers in thousands. Percents based on nonconsumptive users in region.)

Region of residence	Wildlife-related organizations						Publication readership				
	Total		National		Local		Participants		Frequency[1] (percent)		
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Frequently	Sometimes	Rarely
Total	16,302	17.5	14,775	15.8	3,180	3.4	47,865	51.3	44.0	33.4	22.1
New England	1,204	22.1	1,116	20.5	*264	4.8	2,915	53.5	46.4	39.8	13.8
Middle Atlantic	2,424	17.9	2,096	15.5	605	4.5	6,655	49.2	49.1	33.4	16.0
East North Central	3,194	15.5	2,832	13.8	597	2.9	10,032	48.8	38.9	34.0	27.1
West North Central	1,289	15.8	1,194	14.7	*210	2.6	4,475	54.9	47.1	34.3	18.2
South Atlantic	1,953	15.3	1,881	14.8	*318	2.5	6,527	51.3	44.0	34.4	21.3
East South Central	577	12.1	429	9.0	*223	4.7	2,382	50.1	41.3	37.5	20.4
West South Central	1,146	13.8	1,085	13.1	*166	2.0	3,995	48.1	41.6	31.9	24.9
Mountain	1,121	21.1	1,012	19.0	*288	5.4	2,924	55.0	45.5	27.9	26.1
Pacific	3,395	23.4	3,131	21.6	509	3.5	7,960	55.0	44.7	30.7	24.6

Note: Detail does not add to total because of multiple responses or nonresponse.
[1] Frequently: about once a month. Sometimes: about six times in the year. Rarely: less than six times in the year.

Table 68. Number of Birds Identifiable by Sight and Sound and Life Bird Lists, by Region: 1980

(U.S. population 16 years old and older. Numbers in thousands. Percents based on regional population.)

Region of residence	Identification[1]						Life bird list	
	1-20		21-40		41 or more			
	Number	Percent of nonconsumptive users	Number	Percent of nonconsumptive users	Number	Percent of nonconsumptive users	Number	Percent of bird observers[2]
Total	69,107	74.1	13,341	14.3	5,060	5.4	2,446	4.0
New England	3,908	71.7	926	17.0	*326	6.0	*243	6.3
Middle Atlantic	10,345	76.6	1,840	13.6	693	5.1	591	6.7
East North Central	16,156	78.6	2,484	12.1	820	4.0	511	3.7
West North Central	5,728	70.3	1,511	18.5	559	6.9	...	...
South Atlantic	9,538	74.9	1,532	12.0	680	5.3	*347	4.0
East South Central	3,427	72.1	723	15.2	*193	4.1	...	...
West South Central	5,678	68.4	1,307	15.7	*500	6.0	*196	3.9
Mountain	3,371	63.4	882	16.6	*297	5.6	...	...
Pacific	10,956	75.6	2,137	14.8	992	6.8	*286	3.0

Note: Detail does not add to total because of nonresponse.
* Estimate based on a small sample size.
... Sample size too small to report data reliably.
[1] 1,253 thousand participants indicated that they could not identify any birds, 1.3 percent of total nonconsumptive users.
[2] Observed birds on a primary-purpose trip or took special interest in birds around the home.

Table 69. Selected Characteristics of Participants in Primary Nonresidential Activities: 1980

(U.S. population 16 years old and older. Numbers in thousands.)

Characteristic	Total population		Primary participants		Total nonresidential			Observe		
	Number	Percent	Number	Percent of population	Number	Percent of population	Percent	Number	Percent of population	Percent
Total persons	169,942	100.0	83,173	48.9	28,822	17.0	100.0	28,682	16.9	100.0
Population density:										
Big cities	22,968	13.5	8,131	35.4	2,447	10.7	8.5	2,447	10.7	8.5
Small cities	71,041	41.8	36,774	51.8	12,729	17.9	44.2	12,679	17.8	44.2
Towns and rural areas	75,934	44.7	38,268	50.4	13,646	18.0	47.3	13,556	17.9	47.3
Census geographic division:										
New England	9,362	5.5	5,047	53.9	1,657	17.7	5.7	1,657	17.7	5.8
Middle Atlantic	27,867	16.4	12,348	44.3	4,111	14.8	14.3	4,090	14.7	14.3
East North Central	30,791	18.1	18,539	60.2	6,099	19.8	21.2	6,069	19.7	21.2
West North Central	12,774	7.5	7,357	57.6	3,000	23.5	10.4	3,000	23.5	10.5
South Atlantic	28,066	16.5	11,562	41.2	3,739	13.3	13.0	3,739	13.3	13.1
East South Central	10,792	6.4	4,294	39.8	1,173	10.9	4.1	1,173	10.9	4.1
West South Central	17,550	10.3	7,105	40.5	1,842	10.5	6.4	1,828	10.4	6.4
Mountain	8,415	5.0	4,574	54.4	2,125	25.2	7.4	2,078	24.7	7.2
Pacific	24,326	14.3	12,347	50.8	5,076	20.9	17.6	5,048	20.7	17.6
Sex and age group:										
Both sexes, total	169,942	100.0	83,173	48.9	28,822	17.0	100.0	28,682	16.9	100.0
16-17 years	8,612	5.1	3,346	38.9	1,383	16.1	4.8	1,383	16.1	4.8
18-24 years	28,546	16.8	11,976	42.0	5,960	20.9	20.7	5,945	20.8	20.7
25-34 years	37,742	22.2	21,355	56.6	9,236	24.5	32.0	9,208	24.4	32.1
35-44 years	26,117	15.4	13,763	52.7	4,796	18.4	16.6	4,778	18.3	16.7
45-54 years	22,555	13.3	10,906	48.4	3,340	14.8	11.6	3,326	14.7	11.6
55-64 years	21,723	12.8	10,801	49.7	2,482	11.4	8.6	2,461	11.3	8.6
65 years and older	24,648	14.5	11,025	44.7	1,625	6.6	5.6	1,582	6.4	5.5
Male, total	80,753	47.5	39,152	48.5	14,911	18.5	100.0	14,827	18.4	100.0
16-17 years	4,442	2.6	1,965	44.2	837	18.8	5.6	837	18.8	5.6
18-24 years	13,916	8.2	5,904	42.4	3,106	22.3	20.8	3,090	22.2	20.8
25-34 years	18,527	10.9	9,931	53.6	4,715	25.5	31.6	4,701	25.4	21.7
35-44 years	12,750	7.5	6,646	52.1	2,500	19.6	16.8	2,481	19.5	16.7
45-54 years	10,877	6.4	4,919	45.2	1,706	15.7	11.4	1,706	15.7	11.5
55-64 years	10,145	6.0	4,957	48.9	1,334	13.2	8.9	1,314	13.0	8.9
65 years and older	10,095	5.9	4,830	47.8	712	7.1	4.8	698	6.9	4.7
Female, total	89,190	52.5	44,021	49.4	13,912	15.6	100.0	13,855	15.5	100.0
16-17 years	4,169	2.5	1,382	33.1	546	13.1	3.9	546	13.1	3.9
18-24 years	14,630	8.6	6,072	41.5	2,854	19.5	20.5	2,854	19.5	20.6
25-34 years	19,215	11.3	11,424	59.5	4,521	23.5	32.5	4,507	23.5	32.5
35-44 years	13,367	7.9	7,118	53.2	2,296	17.2	16.5	2,296	17.2	16.6
45-54 years	11,678	6.9	5,987	51.3	1,634	14.0	11.7	1,619	13.9	11.7
55-64 years	11,577	6.8	5,844	50.5	1,147	9.9	8.2	1,147	9.9	8.3
65 years and older	14,553	8.6	6,195	42.6	913	6.3	6.6	884	6.1	6.4

(See footnotes at end of table.)

Table 69. Selected Characteristics of Participants in Primary Nonresidential Activities: 1980 *(Continued)*

(U.S. population 16 years old and older. Numbers in thousands.)

Characteristic	Total population		Primary participants		Total nonresidential			Observe		
	Number	Percent	Number	Percent of population	Number	Percent of population	Percent	Number	Percent of population	Percent
Race:										
White	146,999	86.5	77,163	52.5	27,347	18.6	94.9	27,246	18.5	95.0
Black	18,175	10.7	4,693	25.8	961	5.3	3.3	941	5.2	3.3
All others	4,768	2.8	1,316	27.6	514	10.8	1.8	495	10.4	1.7
Annual household income:										
Under $5,000	12,997	7.6	4,836	37.2	1,495	11.5	5.2	1,495	11.5	5.2
$5,000-$9,999	22,876	13.5	9,408	41.1	2,327	10.2	8.1	2,299	10.0	8.0
$10,000-$14,999	21,210	12.5	10,278	48.5	3,802	17.9	13.2	3,788	17.9	13.2
$15,000-$19,999	19,310	11.4	9,797	50.7	3,447	17.9	12.0	3,433	17.8	12.0
$20,000-$24,999	21,966	12.9	13,180	60.0	4,999	22.8	17.3	4,980	22.7	17.4
$25,000-$29,999	16,379	9.6	8,968	54.8	3,572	21.8	12.4	3,558	21.7	12.4
$30,000-$39,999	13,764	8.1	8,506	61.8	3,278	23.8	11.4	3,243	23.6	11.3
$40,000-$49,999	5,664	3.3	3,011	53.2	1,034	18.3	3.6	1,034	18.3	3.6
$50,000 or more	5,854	3.4	3,174	54.2	1,171	20.0	4.1	1,171	20.0	4.1
Not reported	29,923	17.6	12,015	40.2	3,697	12.4	12.8	3,681	12.3	12.8
Education:										
None	1,452	0.9	*344	23.7	...	...	...	...	...	...
1-7 years	12,453	7.3	3,952	31.7	865	6.9	3.0	846	6.8	2.9
8 years	11,401	6.7	3,895	34.2	756	6.6	2.6	756	6.6	2.6
9-11 years	28,555	16.8	12,006	42.0	3,543	12.4	12.3	3,543	12.4	12.3
12 years	62,538	36.8	30,788	49.2	10,580	16.9	36.7	10,517	16.8	36.7
1-3 years college	26,250	15.4	15,186	57.9	6,100	23.2	21.2	6,070	23.1	21.2
4 years college	13,936	8.2	8,354	59.9	3,359	24.1	11.7	3,359	24.1	11.7
5 or more years college	13,359	7.9	8,647	64.7	3,588	26.9	12.4	3,560	26.6	12.4
Occupation[1]:										
Civilian population	165,633	97.5	82,694	49.9	28,625	17.3	100.0	28,485	17.2	100.0
Civilian labor force	104,808	61.7	51,392	49.0	20,268	19.3	70.8	20,171	19.2	70.8
White collar workers										
Professional and technical	16,161	9.5	10,450	64.7	4,478	27.7	15.6	4,478	27.7	15.7
Farmers	1,373	0.8	621	45.1	*206	14.9	0.1	*206	14.9	1.0
Managers and proprietors	11,385	6.7	6,447	56.6	2,653	23.3	9.3	2,637	23.2	9.3
Clerical	18,089	10.6	9,144	50.6	3,216	17.8	11.2	3,216	17.8	11.3
Sales	6,146	3.6	3,573	58.1	1,334	21.7	4.7	1,334	21.7	4.7
Blue collar workers										
Craftsmen	12,027	7.1	6,389	53.1	2,789	23.2	9.7	2,774	23.1	9.7
Operatives	13,487	7.9	5,612	41.6	2,059	15.3	7.2	2,038	15.1	7.2
Private households	1,071	0.6	463	43.2	*195	18.2	6.8	*195	18.2	1.0
Other service	11,872	7.0	5,366	45.2	2,028	17.1	7.1	1,999	16.8	7.0
Farm laborers	903	0.5	428	47.4	*247	27.4	0.1	*228	25.2	1.0
Other laborers	3,865	2.3	1,728	44.7	687	17.8	2.4	687	17.8	2.4
Civilian population not in labor force	60,819	35.8	30,962	50.9	8,268	13.6	28.9	8,240	13.5	28.9

(See footnotes at end of table.)

Table 69. Selected Characteristics of Participants in Primary Nonresidential Activities: 1980 *(Continued)*

(U.S. population 16 years old and older. Numbers in thousands.)

Characteristic	Photograph			Feed		
	Number	Percent of population	Percent	Number	Percent of population	Percent
Total persons	11,817	7.0	100.0	13,102	7.7	100.0
Population density:						
Big cities	1,244	5.4	10.5	1,159	5.0	8.8
Small cities	5,727	8.1	48.5	6,409	9.0	48.9
Towns and rural areas	4,846	6.4	41.0	5,534	7.3	42.2
Census geographic division:						
New England	629	6.7	5.3	974	10.4	7.4
Middle Atlantic	1,606	5.8	13.2	1,963	7.0	15.0
East North Central	2,277	7.4	19.3	2,979	9.7	22.7
West North Central	970	7.6	8.2	907	7.1	6.9
South Atlantic	1,719	6.1	14.5	1,628	5.8	12.4
East South Central	408	3.8	3.5	476	4.4	3.6
West South Central	766	4.4	6.5	864	4.9	6.6
Mountain	844	10.0	7.1	731	8.7	5.6
Pacific	2,597	10.7	22.0	2,580	10.6	19.7
Sex and age group:						
Both sexes, total	11,817	7.0	100.0	13,102	7.7	100.0
16-17 years	627	7.3	5.3	625	7.3	4.8
18-24 years	2,548	8.9	21.6	2,570	9.0	19.6
25-34 years	4,217	11.2	35.7	4,633	12.3	35.4
35-44 years	1,809	6.9	15.3	2,147	8.2	16.4
45-54 years	1,397	6.2	11.8	1,492	6.6	11.4
55-64 years	947	4.4	8.0	996	4.6	7.6
65 years and older	*271	1.1	2.3	638	2.6	4.9
Male, total	5,898	7.3	100.0	6,048	7.5	100.0
16-17 years	*306	6.9	5.2	*339	7.6	5.6
18-24 years	1,176	8.5	19.9	1,158	8.3	19.1
25-34 years	2,144	13.0	36.4	2,131	11.5	35.2
35-44 years	958	7.5	16.2	1,045	8.2	17.3
45-54 years	690	6.3	11.7	634	5.8	10.5
55-64 years	491	4.8	8.3	522	5.1	8.6
65 years and older	...	...	...	*219	2.2	3.6
Female, total	5,919	6.6	100.0	7,053	7.9	100.0
16-17 years	*322	7.7	5.4	*286	6.9	4.1
18-24 years	1,371	9.4	23.2	1,411	9.6	20.0
25-34 years	2,074	10.8	35.0	2,502	13.0	35.5
35-44 years	851	6.4	14.4	1,102	8.2	15.6
45-54 years	707	6.1	11.9	858	7.3	12.2
55-64 years	457	3.9	7.7	474	4.1	6.7
65 years and older	...	...	...	419	2.9	5.9
Race:						
White	11,257	7.7	95.3	12,462	8.5	95.1
Black	*313	1.7	2.6	397	2.2	3.0
All others	*247	5.2	2.1	*243	5.1	1.9
Annual household income:						
Under $5,000	540	4.2	4.6	653	5.0	5.0
$5,000-$9,999	754	3.3	6.4	1,163	5.1	8.9
$10,000-$14,999	1,539	7.3	13.0	1,784	8.4	13.6
$15,000-$19,999	1,625	8.4	13.7	1,390	7.2	10.6
$20,000-$24,999	2,150	9.8	18.2	2,189	10.0	16.7
$25,000-$29,999	1,424	8.7	12.0	1,717	10.5	13.1
$30,000-$39,999	1,398	10.2	11.8	1,629	11.8	12.4
$40,000-$49,999	448	7.9	3.8	409	7.2	3.1
$50,000 or more	536	9.2	4.5	435	7.4	3.3
Not reported	1,402	4.7	11.9	1,732	5.8	13.2
Education:						
None	...	...	...	...	...	...
1-7 years	*289	2.3	1.2	420	3.4	3.2
8 years	*195	1.7	1.0	*297	2.6	2.3
9-11 years	1,273	4.5	5.4	1,675	5.9	12.8
12 years	4,088	6.5	17.3	5,168	8.3	39.4
1-3 years college	2,621	10.0	11.1	2,574	9.8	19.6
4 years college	1,763	12.7	7.5	1,505	10.8	11.5
5 or more years college	1,571	11.8	6.6	1,433	10.7	10.9
Occupation:[1]						
Civilian population	11,744	7.1	100.0	12,963	7.8	100.0
Civilian labor force	8,771	8.4	74.7	9,028	8.6	69.6
White collar workers						
Professional and technical	2,221	13.7	18.9	2,032	12.6	15.7
Farmers	...	...	...	...	...	...
Managers and proprietors	1,290	11.3	11.0	1,079	9.5	8.3
Clerical	1,381	7.6	11.8	1,479	8.2	11.4
Sales	664	10.8	5.7	564	17.9	4.4
Blue collar workers						
Craftsmen	1,153	9.6	9.8	1,117	9.3	8.6
Operatives	648	4.8	5.5	917	6.8	7.1
Private households	...	...	...	...	...	...
Other service	807	6.8	6.9	1,120	9.4	8.6
Farm laborers	...	...	...	...	...	...
Other laborers	*298	7.7	2.5	*315	8.2	2.4
Civilian population not in labor force	2,944	4.8	25.1	3,921	6.4	30.2

Note: Detail does not add to total because of multiple responses or nonresponse.
* Estimate based on a small sample size.
... Sample size too small to report data reliably.
[1] Total population figures for occupation categories from February 1981 Current Population Survey (CPS) data because occupation items were not asked on the screening questionnaire. These CPS figures are based on 1970 census results.

Table 70. Selected Characteristics of Participants in Primary Residential Activities: 1980

(U.S. population 16 years old and older. Numbers in thousands.)

Characteristic	Total population		Primary participants		Total residential			Observe		
	Number	Percent	Number	Percent of population	Number	Percent of population	Percent	Number	Percent of population	Percent
Total persons	169,942	100.0	83,173	48.9	79,670	46.9	100.0	55,871	32.9	100.0
Population density:										
Big cities	22,968	13.5	8,131	35.4	7,699	33.5	9.7	4,841	21.1	86.6
Small cities	71,041	41.8	36,774	51.8	35,358	49.8	44.4	24,410	34.4	43.7
Towns and rural areas	75,934	44.7	38,268	50.4	36,613	48.2	46.0	26,620	35.1	47.6
Census geographic division:										
New England	9,362	5.5	5,047	53.9	4,952	52.9	6.2	3,590	38.4	6.4
Middle Atlantic	27,867	16.4	12,348	44.3	11,872	42.6	14.9	8,059	28.9	14.4
East North Central	30,791	18.1	18,539	60.2	17,936	58.3	22.5	12,455	40.5	22.3
West North Central	12,774	7.5	7,357	57.6	6,783	53.1	8.5	4,894	38.3	8.8
South Atlantic	28,066	16.5	11,562	41.2	11,270	40.2	14.1	7,886	28.1	14.1
East South Central	10,792	6.4	4,294	39.8	4,117	38.2	5.2	2,637	24.4	4.7
West South Central	17,550	10.3	7,105	40.5	6,837	39.0	8.6	4,849	27.6	8.7
Mountain	8,415	5.0	4,574	54.4	4,133	49.1	5.2	2,989	35.5	5.3
Pacific	24,326	14.3	12,347	50.8	11,770	48.4	14.8	8,510	35.0	15.2
Sex and age group:										
Both sexes, total	169,942	100.0	83,173	48.9	79,670	46.9	100.0	55,871	32.9	100.0
16-17 years	8,612	5.1	3,346	38.9	3,229	37.5	4.1	2,032	23.6	3.6
18-24 years	28,546	16.8	11,976	42.0	10,967	38.4	13.8	7,129	25.0	12.8
25-34 years	37,742	22.2	21,355	56.6	20,154	53.4	25.3	14,202	37.6	25.4
35-44 years	26,117	15.4	13,763	52.7	13,172	50.4	16.5	9,233	35.4	16.5
45-54 years	22,555	13.3	10,906	48.4	10,575	46.9	13.3	7,683	34.1	13.8
55-64 years	21,723	12.8	10,801	49.7	10,663	49.1	13.4	7,778	35.8	13.9
65 years and older	24,648	14.5	11,025	44.7	10,909	44.3	13.7	7,814	31.7	14.0
Male, total	80,753	47.5	39,152	48.5	37,012	45.8	46.5	25,887	32.1	46.3
16-17 years	4,442	2.6	1,965	44.2	1,879	42.3	2.4	1,221	27.5	2.2
18-24 years	13,916	8.2	5,904	42.4	5,280	37.9	6.6	3,368	24.2	6.0
25-34 years	18,527	10.9	9,931	53.6	9,187	49.6	11.5	6,356	34.3	11.4
35-44 years	12,750	7.5	6,646	52.1	6,294	49.4	7.9	4,370	34.3	7.8
45-54 years	10,877	6.4	4,919	45.2	4,691	43.1	5.9	3,449	31.7	6.2
55-64 years	10,145	6.0	4,957	48.9	4,895	48.2	6.1	3,570	35.2	6.4
65 years and older	10,095	5.9	4,830	47.8	4,786	47.4	6.0	3,554	35.2	6.4
Female, total	89,190	52.5	44,021	49.4	42,657	47.8	53.5	29,984	33.6	53.7
16-17 years	4,169	2.5	1,382	33.1	1,350	32.4	1.7	811	19.5	14.5
18-24 years	14,630	8.6	6,072	41.5	5,687	38.9	7.1	3,762	25.7	6.7
25-34 years	19,215	11.3	11,424	59.5	10,967	57.1	13.8	7,847	40.8	14.0
35-44 years	13,367	7.9	7,118	53.2	6,879	51.5	8.6	4,862	36.4	8.7
45-54 years	11,678	6.9	5,987	51.3	5,884	50.4	7.4	4,234	36.3	7.6
55-64 years	11,577	6.8	5,844	50.5	5,768	49.8	7.2	4,208	36.3	7.5
65 years and older	14,553	8.6	6,195	42.6	6,122	42.1	7.7	4,260	29.3	7.6

(See footnotes at end of table.)

Table 70. Selected Characteristics of Participants in Primary Residential Activities: 1980 *(Continued)*

(U.S. population 16 years old and older. Numbers in thousands.)

Characteristic	Total population		Primary participants		Total residential			Observe		
	Number	Percent	Number	Percent of population	Number	Percent of population	Percent	Number	Percent of population	Percent
Race:										
White	146,999	86.5	77,163	52.5	73,926	50.3	92.8	52,565	35.8	94.1
Black	18,175	10.7	4,693	25.8	4,511	24.8	5.7	2,484	13.7	4.4
All others	4,768	2.8	1,316	27.6	1,233	25.9	1.5	822	17.2	1.5
Annual household income:										
Under $5,000	12,997	7.6	4,836	37.2	4,644	35.7	5.8	3,001	23.1	5.4
$5,000-9,999	22,876	13.5	9,408	41.1	9,067	39.6	11.4	5,845	25.6	10.5
$10,000-14,999	21,210	12.5	10,278	48.5	9,688	45.7	12.2	6,969	32.9	12.5
$15,000-19,999	19,310	11.4	9,797	50.7	9,497	49.2	11.9	6,562	34.0	11.7
$20,000-24,999	21,966	12.9	13,180	60.0	12,412	56.5	15.6	8,846	40.3	15.8
$25,000-29,999	16,379	9.6	8,968	54.8	8,641	52.8	10.8	6,551	40.0	11.7
$30,000-39,999	13,764	8.1	8,506	61.8	8,145	59.2	10.2	5,705	41.4	10.2
$40,000-49,999	5,664	3.3	3,011	53.2	2,924	51.6	3.7	2,134	37.7	3.8
$50,000 or more	5,854	3.4	3,174	54.2	3,014	51.5	3.8	2,057	35.1	3.7
Not reported	29,923	17.6	12,015	40.2	11,637	38.9	14.6	8,200	27.4	14.7
Education:										
None	1,452	0.9	*344	23.7	*344	23.7	0.4	*218	15.0	0.4
1-7 years	12,453	7.3	3,952	31.7	3,823	30.7	4.8	2,487	20.0	4.5
8 years	11,401	6.7	3,895	34.2	3,801	33.3	4.8	2,544	22.3	4.6
9-11 years	28,555	16.8	12,006	42.0	11,672	40.9	14.7	7,802	27.3	14.0
12 years	62,538	36.8	30,788	49.2	29,455	47.1	37.0	20,242	32.4	36.2
1-3 years college	26,250	15.4	15,186	57.9	14,437	55.0	18.1	10,409	39.7	18.6
4 years college	13,936	8.2	8,354	59.9	7,856	56.4	9.9	5,860	42.0	10.5
5 or more years college	13,359	7.9	8,647	64.7	8,281	62.0	10.4	6,309	47.2	11.3
Occupation[1]:										
Civilian population	165,633	97.5	82,694	49.9	79,210	47.8	100.0	55,585	33.6	100.0
Civilian labor force	104,808	61.7	51,392	49.0	48,661	46.4	61.4	33,829	32.3	60.9
White collar workers										
Professional and technical	16,161	9.5	10,450	64.7	9,699	60.0	12.2	7,204	44.6	13.0
Farmers	1,378	0.8	621	45.1	607	44.0	7.7	428	31.1	0.8
Managers and proprietors	11,385	6.7	6,447	56.6	6,204	54.5	7.8	4,346	38.2	7.8
Clerical	18,089	10.6	9,144	50.6	8,661	47.9	10.9	6,041	33.4	10.9
Sales	6,146	3.6	3,573	58.1	3,333	54.2	4.2	2,256	37.2	4.1
Blue collar workers										
Craftsmen	12,027	7.1	6,389	53.1	6,036	50.9	7.6	4,365	36.3	7.9
Operatives	13,487	7.9	5,612	41.6	5,428	40.2	6.9	3,301	24.5	5.9
Private households	1,071	0.6	463	43.2	447	41.7	5.6	*285	26.6	0.5
Other service	11,872	7.0	5,366	45.2	5,198	43.8	6.6	3,513	29.6	6.3
Farm laborers	903	0.5	428	47.4	397	44.0	5.0	*291	32.2	0.5
Other laborers	3,865	2.3	1,728	44.7	1,635	42.3	2.1	1,175	30.4	2.1
Civilian population not in labor force	60,819	35.8	30,962	50.9	30,238	49.7	3.8	21,559	35.4	38.8

(See footnotes at end of table.)

Table 70. Selected Characteristics of Participants in Primary Residential Activities: 1980 *(Continued)*

(U.S. population 16 years old and older. Numbers in thousands.)

Characteristic	Photograph			Feed birds		
	Number	Percent of population	Percent	Number	Percent of population	Percent
Total persons	12,401	7.3	100.0	62,463	36.8	100.0
Population density:						
Big cities	1,218	5.3	9.8	5,949	25.9	9.5
Small cities	5,520	7.8	44.5	27,570	38.8	44.1
Towns and rural areas	5,662	7.5	45.7	28,944	38.1	46.3
Census geographic division:						
New England	885	9.4	7.1	4,200	44.9	6.7
Middle Atlantic	1,806	6.5	14.6	9,429	33.8	15.1
East North Central	2,631	8.5	21.2	14,757	47.9	23.6
West North Central	1,086	8.5	8.8	4,908	38.4	7.9
South Atlantic	1,687	6.0	13.6	9,182	32.7	14.7
East South Central	447	4.1	3.6	3,351	31.0	5.4
West South Central	979	5.6	7.9	5,499	31.3	8.8
Mountain	817	9.7	6.6	2,686	31.9	4.3
Pacific	2,062	8.5	16.6	8,451	34.7	13.5
Sex and age group:						
Both sexes, total	12,401	7.3	100.0	62,463	36.8	100.0
16-17 years	827	9.6	6.7	2,052	23.8	3.3
18-24 years	2,140	7.5	17.3	7,561	26.5	12.1
25-34 years	4,061	10.8	32.7	15,209	40.3	24.3
35-44 years	2,040	7.8	16.5	10,102	38.7	16.2
45-54 years	1,458	6.5	11.8	8,523	37.8	13.6
55-64 years	1,103	5.1	8.9	9,434	43.4	15.1
65 years and older	772	3.1	6.2	9,583	38.9	15.3
Male, total	6,333	7.8	51.1	27,071	33.5	43.3
16-17 years	463	10.4	3.7	1,158	26.1	1.9
18-24 years	1,035	7.4	8.3	3,392	24.4	5.4
25-34 years	2,054	11.1	16.6	6,415	34.6	10.3
35-44 years	1,023	8.0	8.2	4,320	33.9	6.9
45-54 years	779	7.2	6.3	3,423	31.5	5.5
55-64 years	606	6.0	4.9	4,221	41.6	6.8
65 years and older	*373	3.7	3.0	4,142	41.0	6.6
Female, total	6,067	6.8	48.9	35,392	39.7	56.7
16-17 years	*363	8.7	2.9	894	21.4	1.4
18-24 years	1,105	7.6	8.9	4,169	28.5	6.7
25-34 years	2,006	10.4	16.2	8,793	45.8	14.1
35-44 years	1,018	7.6	8.2	5,782	43.3	9.3
45-54 years	679	5.8	5.5	5,100	43.7	8.2
55-64 years	497	4.3	4.0	5,212	45.0	8.3
65 years and older	399	2.7	3.2	5,441	37.4	8.7
Race:						
White	11,726	8.0	94.6	58,145	39.6	93.1
Black	460	2.5	3.7	3,468	19.1	5.6
All others	*214	4.5	1.7	850	17.8	1.4
Annual household income:						
Under $5,000	484	3.7	3.9	3,699	28.5	5.9
$5,000-$9,999	932	4.1	7.5	7,695	33.6	12.3
$10,000-$14,999	1,410	6.6	11.4	7,333	34.6	11.7
$15,000-$19,999	1,559	8.1	12.6	7,433	38.5	11.9
$20,000-$24,999	1,849	8.4	14.9	9,722	44.3	15.6
$25,000-$29,999	1,622	9.9	13.1	6,653	40.6	10.7
$30,000-$39,999	1,813	13.2	14.6	6,270	45.5	10.0
$40,000-$49,999	543	9.6	4.4	2,283	40.3	3.7
$50,000 or more	672	11.5	5.4	2,184	37.3	3.5
Not reported	1,517	5.1	12.2	9,193	30.7	14.7
Education:						
None	...	...	...	*266	18.3	0.4
1-7 years	*238	1.9	1.9	3,267	26.2	5.2
8 years	*227	2.0	1.8	3,251	28.5	5.2
9-11 years	1,493	5.2	12.0	9,278	32.5	14.9
12 years	3,915	6.3	31.6	23,727	37.9	38.0
1-3 years college	3,175	12.1	25.6	10,739	40.9	17.2
4 years college	1,666	12.0	13.4	6,268	45.0	10.0
5 or more years college	1,671	12.5	13.7	5,666	42.4	9.1
Occupation[1]:						
Civilian population	12,288	74.2	100.0	62,173	37.5	100.0
Civilian labor force	8,751	8.3	71.2	36,530	34.9	58.8
White collar workers						
Professional and technical	2,235	13.8	18.2	6,820	42.2	11.0
Farmers	...	...	...	*370	26.9	0.6
Managers and proprietors	1,260	11.1	10.3	4,653	40.9	7.5
Clerical	1,493	8.3	12.2	6,874	38.0	11.1
Sales	657	10.7	5.3	2,593	42.2	4.2
Blue collar workers						
Craftsmen	1,092	9.1	8.9	4,379	36.4	7.0
Operatives	556	4.1	4.5	4,212	31.2	6.8
Private households	...	...	...	387	36.1	0.6
Other service	833	7.0	6.8	4,192	35.3	6.7
Farm laborers	...	...	...	*257	28.5	0.4
Other laborers	*340	8.8	2.8	1,083	28.0	1.7
Civilian population not in labor force	3,522	5.8	28.7	25,380	41.7	40.8

Note: Detail does not add to total because of multiple responses or nonresponse. * Estimate based on a small sample size. ... Sample size too small to report data reliably.

[1] Total population figures for occupation categories from February 1981 Current Population Survey (CPS) data because occupation questions were not asked on the screening questionnaire. These CPS figures are based on 1970 census results.

Table 71. Selected Characteristics of Participants in Secondary Activities: 1980

(U.S. population 16 years old and older. Numbers in thousands.)

Characteristic	Total population		Total secondary		Nonresidential			Residential		
	Number	Percent	Number	Percent of population	Number	Percent of population	Percent	Number	Percent of population	Percent
Total persons	169,942	100.0	88,272	51.9	69,407	40.8	100.0	80,475	47.4	100.0
Population density:										
Big cities	22,968	13.5	8,448	36.8	6,282	27.4	9.1	7,399	32.2	9.2
Small cities	71,041	41.8	39,436	55.5	32,251	45.4	46.5	35,284	49.7	43.8
Towns and rural areas	75,934	44.7	40,387	53.2	30,874	40.7	44.5	37,792	49.8	47.0
Census geographic division:										
New England	9,362	5.5	5,135	54.8	3,801	40.6	5.5	4,598	49.1	5.7
Middle Atlantic	27,867	16.4	12,288	44.1	9,165	32.9	13.2	11,195	40.2	13.9
East North Central	30,791	18.1	19,606	63.7	15,437	50.1	22.2	18,499	60.1	23.0
West North Central	12,774	7.5	7,929	62.1	6,344	49.7	9.1	7,340	57.5	9.1
South Atlantic	28,066	16.5	11,848	42.2	8,869	31.6	12.8	11,050	39.4	13.7
East South Central	10,792	6.4	4,523	41.9	3,243	30.0	4.7	4,179	38.7	5.2
West South Central	17,550	10.3	7,977	45.5	6,398	36.5	9.2	6,998	39.9	8.7
Mountain	8,415	5.0	4,991	59.3	4,290	51.0	6.2	4,307	51.2	5.4
Pacific	24,326	14.3	13,976	57.5	11,861	48.8	17.1	12,309	50.6	15.3
Sex and age group:										
Both sexes, total	169,942	100.0	88,272	51.9	69,407	40.8	100.0	80,475	47.4	100.0
16-17 years	8,612	5.1	3,871	45.0	3,239	37.6	4.7	3,557	41.3	4.4
18-24 years	28,546	16.8	13,973	48.9	12,000	42.0	17.3	12,408	43.5	15.4
25-34 years	37,742	22.2	23,105	61.2	19,357	51.3	27.9	20,736	54.9	25.8
35-44 years	26,117	15.4	14,710	56.3	12,237	46.9	17.6	13,567	51.9	16.9
45-54 years	22,555	13.3	11,172	49.5	8,510	37.7	12.3	10,533	46.7	13.1
55-64 years	21,723	12.8	10,758	49.5	7,709	35.5	11.1	9,760	44.9	12.1
65 years and older	24,648	14.5	10,683	43.3	6,356	25.8	9.2	9,916	40.2	12.3
Male, total	80,753	47.5	42,553	52.7	34,014	42.1	100.0	38,518	47.7	100.0
16-17 years	4,442	2.6	2,262	50.9	1,866	42.0	5.5	2,036	45.8	5.6
18-24 years	13,916	8.2	6,945	49.9	5,969	42.9	17.5	6,205	44.6	17.0
25-34 years	18,527	10.9	11,019	59.5	9,407	50.8	27.7	9,719	52.5	26.6
35-44 years	12,750	7.5	7,471	58.6	6,164	48.3	18.1	6,847	53.7	18.7
45-54 years	10,877	6.4	5,252	48.3	4,040	37.1	11.9	4,918	45.2	13.5
55-64 years	10,145	6.0	5,003	49.3	3,638	35.9	10.7	4,548	44.8	12.5
65 years and older	10,095	5.9	4,601	45.6	2,931	29.0	8.6	4,246	42.1	11.6
Female, total	89,190	52.5	45,719	51.3	35,393	39.7	100.0	41,957	47.0	100.0
16-17 years	4,169	2.5	1,609	38.6	1,373	32.9	3.9	1,521	36.5	3.6
18-24 years	14,630	8.6	7,028	48.0	6,031	41.2	17.0	6,203	42.4	14.8
25-34 years	19,215	11.3	12,086	62.9	9,950	51.8	28.1	11,017	57.3	26.3
35-44 years	13,367	7.9	7,240	54.2	6,073	45.4	17.2	6,720	50.3	16.0
45-54 years	11,678	6.9	5,920	50.7	4,470	38.3	12.6	5,616	48.1	13.4
55-64 years	11,577	6.8	5,755	49.7	4,071	35.2	11.5	5,212	45.0	12.4
65 years and older	14,553	8.6	6,082	41.8	3,425	23.5	9.7	5,670	39.0	13.5
Race:										
White	146,999	86.5	81,971	55.8	64,959	44.2	93.6	74,830	50.9	93.0
Black	18,175	10.7	4,790	26.4	3,346	18.4	4.8	4,318	23.8	5.4
All others	4,768	2.8	1,511	31.7	1,102	23.1	1.6	1,327	27.8	1.6

(See footnotes at end of table.)

Table 71. Selected Characteristics of Participants in Secondary Activities: 1980 *(Continued)*

U.S. population 16 years old or older. Numbers in thousands.)

Characteristic	Total population		Total secondary		Nonresidential			Residential		
	Number	Percent	Number	Percent of population	Number	Percent of population	Percent	Number	Percent of population	Percent
Annual household income:										
Under $5,000	12,997	7.6	4,980	38.3	3,594	27.7	5.2	4,522	34.8	5.6
$5,000-$9,999	22,876	13.5	9,332	40.8	5,980	26.1	8.6	8,602	37.6	10.7
$10,000-$14,999	21,210	12.5	10,518	49.6	8,303	39.1	12.0	9,667	45.6	12.0
$15,000-$19,999	19,310	11.4	10,616	55.0	8,677	44.9	12.5	9,526	49.3	11.8
$20,000-$24,999	21,966	12.9	14,113	64.3	11,617	52.9	16.7	12,738	58.0	15.8
$25,000-$29,999	16,379	9.6	9,812	59.9	8,084	49.4	11.6	8,927	54.5	11.1
$30,000-$39,999	13,764	8.1	9,404	68.3	7,960	57.8	11.5	8,739	63.5	10.9
$40,000-$49,999	5,664	3.3	3,346	59.1	2,715	47.9	3.9	3,029	53.5	3.8
$50,000 or more	5,854	3.4	3,667	62.6	3,149	53.8	4.5	3,335	57.0	4.1
Not reported	29,923	17.6	12,483	41.7	9,328	31.2	13.4	11,390	38.1	14.2
Education:										
None	1,452	0.9	*298	20.5	*215	14.8	0.3	*267	18.4	0.3
1-7 years	12,453	7.3	3,814	30.6	2,099	16.9	3.0	3,485	28.0	4.3
8 years	11,401	6.7	3,925	34.4	2,190	19.2	3.2	3,655	32.1	4.5
9-11 years	28,555	16.8	12,650	44.3	9,467	33.2	13.6	11,613	40.7	14.4
12 years	62,538	36.8	32,207	51.5	25,199	40.3	36.3	28,928	46.3	35.9
1-3 years college	26,250	15.4	16,760	63.8	14,295	54.5	20.6	15,331	58.4	19.1
4 years college	13,936	8.2	9,093	65.2	7,721	55.4	11.1	8,454	60.7	10.5
5 or more years college	13,359	7.9	9,525	71.3	8,221	61.5	11.8	8,742	65.4	10.9
Occupation[1]:										
Civilian population	165,633	97.5	87,775	53.0	68,962	41.6	100.0	80,079	48.3	100.0
Civilian labor force	104,808	61.7	56,174	53.6	46,114	44.0	67.1	50,987	58.6	63.7
White collar workers										
Professional and technical	16,161	9.5	11,419	70.7	9,825	60.8	14.3	10,431	64.5	13.0
Farmers	1,378	0.8	681	49.4	524	38.0	0.8	667	48.4	0.8
Managers and proprietors	11,385	6.7	7,067	62.1	6,095	53.5	8.9	6,476	56.9	8.1
Clerical	18,089	10.6	9,739	53.8	7,945	43.9	11.6	8,872	49.0	11.1
Sales	6,146	3.6	4,111	66.9	3,457	56.2	5.0	3,629	59.2	4.5
Blue collar workers										
Craftsmen	12,027	7.1	6,985	58.1	5,677	47.2	8.3	6,335	52.7	7.9
Operatives	13,487	7.9	6,201	46.0	4,679	34.7	6.8	5,578	41.4	7.0
Private households	1,071	0.6	495	46.2	*383	35.8	0.6	495	46.2	0.6
Other service	11,872	7.0	5,638	47.5	4,503	37.9	6.6	5,136	43.3	6.4
Farm laborers	903	0.5	478	52.9	*382	42.3	0.6	428	47.4	0.5
Other laborers	3,865	2.2	1,981	51.3	1,594	41.2	2.3	1,761	45.6	2.2
Civilian population not in labor force	60,819	35.8	31,230	51.3	22,587	37.1	32.9	28,812	47.4	36.0

Note: Detail does not add to total because of multiple responses or nonresponse.

* Estimate based on a small sample size.

[1] Total population figures for occupation categories from February 1981 Current Population Survey (CPS) data because occupation items were not asked on the screening questionnaire. These CPS figures are based on 1970 census results.

Table 72. Participation in More Than One Nonconsumptive Activity: 1980

(U.S. population 16 years old and older. Percent)

Activity	Also engaged in primary activities								
		Nonresidential				Residential			
	Any activity	Total	Observe	Photograph	Feed	Any activity	Observe	Photograph	Feed birds
Any primary activity	100.0	34.7	34.5	14.2	15.8	95.8	67.2	14.9	75.1
Trip takers	100.0	100.0	99.5	41.0	45.5	87.8	70.0	21.1	65.7
Observe	100.0	100.0	100.0	41.2	45.6	87.8	70.1	21.1	65.8
Photograph	100.0	100.0	100.0	100.0	55.4	90.6	74.3	40.7	68.3
Feed	100.0	100.0	99.8	50.0	100.0	91.8	72.8	23.4	76.7
Residential activities	100.0	31.8	31.6	13.4	15.1	100.0	70.1	15.6	78.4
Observe	100.0	36.1	36.0	15.7	17.1	100.0	100.0	18.1	75.7
Photograph	100.0	49.0	48.8	38.8	24.7	100.0	81.4	100.0	72.9
Feed birds	100.0	30.3	30.2	12.9	16.1	100.0	67.7	14.5	100.0
Feed other wildlife	100.0	36.4	36.2	17.2	21.7	100.0	78.4	23.2	87.6
Natural areas	100.0	41.1	41.1	17.7	21.5	100.0	84.9	22.6	81.8
Plantings	100.0	42.6	42.5	20.1	22.3	100.0	82.5	22.4	81.9
Public parks	100.0	50.7	50.7	24.8	24.8	100.0	75.4	27.1	67.2
Any secondary activity	88.9	31.1	31.0	13.0	14.2	85.7	60.8	13.8	66.9
Trip takers	86.8	32.2	32.1	14.3	14.8	83.8	60.4	15.3	63.9
Residential activities	91.0	32.3	32.1	13.4	14.8	88.2	63.9	14.7	69.1

Activity	Also engaged in primary activities (Continued)				Also engaged in secondary activities		
	Residential (Continued)						
	Feed other wildlife	Maintain natural areas	Maintain plantings	Visit public parks	Any activity	Nonresidential	Residential
Any primary activity	25.0	12.2	15.0	16.2	94.4	72.5	88.0
Trip takers	26.3	14.5	18.5	23.7	95.3	77.5	90.1
Observe	26.3	14.5	18.5	23.8	95.4	77.6	90.1
Photograph	30.3	15.2	21.2	28.3	96.9	83.8	91.5
Feed	34.5	16.7	21.3	25.5	95.7	78.5	91.0
Residential activities	26.1	12.7	15.7	16.9	95.0	73.0	89.1
Observe	29.2	15.4	18.4	18.2	96.0	75.0	92.0
Photograph	39.0	18.5	22.6	29.4	98.1	85.7	95.3
Feed birds	29.2	13.3	16.3	14.5	94.5	71.0	89.0
Feed other wildlife	100.0	18.6	21.1	18.1	96.8	76.5	92.2
Natural areas	38.1	100.0	52.2	16.1	98.3	78.9	96.9
Plantings	35.3	42.5	100.0	16.7	99.3	82.4	97.3
Public parks	28.0	12.2	15.5	100.0	97.6	81.8	92.7
Any secondary activity	22.8	11.3	14.0	14.9	100.0	78.6	91.2
Trip takers	23.0	11.5	14.8	15.9	100.0	100.0	88.8
Residential activities	23.9	12.2	15.1	15.5	100.0	76.6	100.0

Table 73. Participants 6-15 Years Old, by Nonconsumptive Activity: 1980

(Thousands)

Activity	Total	6-8	9-11	12-15
Total participants	25,481	6,661	8,247	10,573
PRIMARY ACTIVITIES				
Total	11,442	2,951	4,046	4,445
Trip takers	5,290	1,488	1,925	1,877
Residential activities	8,961	2,210	3,189	3,562
Observe	7,011	1,801	2,515	2,695
Photograph	986	103	305	578
Feed birds	2,627	622	995	1,010
SECONDARY ACTIVITIES				
Total	24,528	6,443	7,908	10,177
Trip takers	16,255	4,301	5,379	6,575
Residential activities	21,827	5,739	7,077	9,011

Note: Detail does not add to total because of multiple responses. Data from the screening questionnaire completed by the household respondent and not necessarily by the participant.

* Estimate based on a small sample size.

. . . Sample size too small to report data reliably.

Appendixes

Appendix A

Definitions

Anadromous

Species, like salmon, shad, steelhead, and striped bass, that move from saltwater to freshwater to spawn.

Auxiliary equipment (nonconsumptive)

Satchels, day-packs, carrying cases, special clothing, tents, tarps, camping equipment, snowshoes, skis, travel or tent trailers, pickup campers, vans, motor homes, other.

Big game

Large wild animals hunted for sport or food, including deer, elk, bear, antelope, and wild turkey.

Binoculars and photographic equipment

Binoculars, spotting scopes, cameras, special lenses, film and developing, other photographic equipment.

Day

Any part of a day spent participating in a given activity. For instance, if someone hunted 2 hours one day and 3 hours another day, it would be recorded as 2 days of hunting. If someone hunted 2 hours in the morning and 1 hour during the evening of the same day, it would be considered 1 day of hunting.

Deep sea fishing

Ocean fishing more than 3 miles from shore.

Direct-use equipment (nonconsumptive)

Field guides, birdseed, birdfeeders, birdhouses or nest boxes, and birdbaths.

Education

The highest grade of regular schooling completed.

Exempt

Not required to purchase a license to hunt or fish in a State in which the respondent hunted or fished in 1980.

Feed

The act of maintaining a bird feeder or otherwise providing food to birds or other wildlife. Includes checking feeder or the supply of crumbs/scraps to be sure that food is available. Some examples of other wildlife that may have been fed are deer, rabbits, and squirrels. Not included are zoo animals or birds kept as pets (canaries, parakeets, etc.).

Fishing

The sport of catching or attempting to catch fish with hook and line or by archery, spearing, gigging or shooting for frogs, and seining and netting (but not for bait). Related pursuits that are not considered fishing in the survey include commercial fishing and catching or gathering shellfish (crabs, clams, oysters, etc.).

Freshwater

Inland waters such as rivers, lakes, streams, and ponds. This category includes the Great Lakes and connecting waters except where clearly distinguished.

Gigging

Using a pronged spear to catch frogs.

Great Lakes (fishing)

Lakes Superior, Michigan, Huron, Erie and Ontario, tributaries and connecting waters, such as Lake St. Clair, and the St. Lawrence River, south of the bridge at Cornwall, New York. Great Lakes fishing includes fishing in these waters as well as fishing for smelt, steelhead, or salmon in rivers that run into the Great Lakes.

Home

The place where the respondent lives or the place where the respondent was staying while on vacation or while on a trip for another purpose; the starting point of a wildlife-related trip.

Household member

Any individual whose usual residence was the sample address.

Hunting

The sport of searching for wildlife with firearms or archery equipment. Only hunting for pleasure or recreation is included. Excluded are trapping animals, commercial hunting, searching for animals to photograph them, capturing animals live (e.g., to put in a zoo or for biological research), and hunting for frogs. Excluded are those who did not have a weapon but may have accompanied others in the field.

Income

The money income of all current household members, 14 years of age or older, during calendar year 1980. Included as income are wages and salaries, net income from a person's own (unincorporated) business, professional practice, or farm and other income payments such as pensions, dividends, and interest, as well as other kinds of periodic money income other than earnings.

In-State

Respondent's State of residence at the time of the screening interview.

Licensed

A fisherman and/or hunter who was licensed to fish and/or hunt in the State where the activity took place.

Life bird list

A list representing those avian species observed or identified by an individual.

Local wildlife organizations

Rod and gun clubs, birding clubs, and other wildlife-related organizations not of national scope. Includes State and local chapters of national organizations.

Maintain

To keep up by weeding, watering, cutting back, etc., plantings for the benefit of wildlife. Also, to set aside an area to serve as natural environment for wildlife.

Manmade areas

Areas such as golf courses, cemeteries, and urban parks.

Manmade lakes and reservoirs

Bodies of water created by using dams or other controls to contain the water.

Migratory birds

Birds regularly moving from one region or climate to another for feeding or breeding, for example, ducks, geese, dove, and woodcock.

Natural area

Wood lots, open fields, and other areas maintained as natural environments for wildlife.

Natural lakes and ponds

Standing bodies of fresh water that were not created by man.

Nonconsumptive user

One who participates in nonconsumptive wildlife-associated activities. (See also, primary nonresidential, primary residential, secondary nonresidential, secondary residential.)

Nongame

Species of wildlife not hunted or fished for sport or food.

Nonresident

An individual who participated in a State other than that in which (s)he resided at the time of the screening interview.

Observe

To give special attention to and derive enjoyment from the viewing of wildlife.

Off-road vehicles

Vehicles such as dune buggies, 4-wheel-drive vehicles, snowmobiles, and trailbikes.

One-day trip

A trip on which the respondent went and returned on the same day, not involving an overnight stay.

Other animals

Animals sometimes thought of as pests or varmints hunted for sport or for food. Not considered to be game animals in some States.

Out-of-State

Activity that occurs in States other than the respondent's State of residence.

Outing

A short trip away from home.

Participant

An individual who fished, hunted, and/or engaged in a nonconsumptive activity during 1980.

Plantings

Trees, bushes, shrubs, flowering plants, and seedbearing grasses chosen partly for their benefit to wildlife.

Population density

Big cities: central cities with population of 500,000 or more. Small cities: all other urban areas with populations of 2,500 but less than 500,000. Towns and rural areas: all places with populations under 2,500 and places with 2,500 persons or more not in an urbanized area.

Primary nonresidential

Trips or outings of at least 1 mile from home for the primary purpose of observing, photographing, or feeding wildlife. (Trips to zoos, circuses, aquariums, and museums, and trips to fish or hunt are not included.)

Primary residential

Activities around the home whose primary purpose is wildlife related, including (1) closely observing or trying to identify birds or other wildlife, (2) photographing wildlife, (3) feeding birds or other wildlife on a regular basis, (4) maintaining natural areas of at least ¼ acre for which benefit to wildlife is an important concern, (5) maintaining plantings (shrubs, agricultural crops, etc.) for which benefit to wildlife is an important concern, or (6) visiting public parks within 1 mile of home for the purpose of observing, photographing, or feeding wildlife.

Primary purpose

The purpose that motivated the trip or activity and without which the trip or activity would not have been undertaken.

Primitive firearm

A black powder gun loaded in the discharge end (muzzle) of the weapon; a muzzle loader.

Public area

Lands owned and administered by local, State, or Federal governments.

Resident

An individual who participated in the State in which (s)he resided at the time of the screening interview.

Response rate

Percent of eligible sample households or individuals that were interviewed.

Saltwater fishing

Fishing in oceans, bays, sounds and tidal waters of rivers and streams.

Scouting

An exploratory trip for the purpose of evaluating potential hunting sites. To be considered scouting, the respondent must not have been carrying a weapon.

Secondary nonresidential

Enjoyment from seeing or hearing wildlife while on a trip or outing of at least 1 mile that is taken for another purpose, such as camping, driving for pleasure, or boating.

Secondary residential

Enjoyment from unplanned opportunities to see or hear wildlife while pursuing other activities around the home (e.g., enjoying birds while doing yardwork).

Secondary purpose

A purpose of a trip or activity that was not the motivating purpose but that held some significance for undertaking the trip or activity.

Small game

Smaller sized wild animals, such as rabbits, quail, grouse and pheasant, which are hunted for sport or for food, not including waterfowl, other migratory birds, and animals generally considered to be pests or varmints.

Spender

An individual who purchased a particular item in 1980.

Sportsman

An individual who hunted and/or fished for sport.

Suet

Animal fat from beef or mutton used in the feeding of birds.

Surf and shore fishing

Fishing in saltwater 3 miles or less from shore.

Trip

Trips for the primary purpose of hunting, fishing, or a nonconsumptive activity as well as trips for another purpose (e.g., vacation) during which these activities occurred. Included are trips from the respondent's residence as well as trips from a starting point other than the respondent's principal residence (e.g., a vacation home, relative's residence).

Unplanned opportunity

An opportunity to enjoy wildlife while engaged in an activity for some purpose other than observing, photographing, or feeding wildlife.

Unlicensed

A fisherman and/or hunter who was not licensed to fish and/or hunt in the State in which the activity took place; includes sportsmen who were exempt from having a license.

Wetlands

Open areas covered with shallow and sometimes temporary or intermittent waters commonly referred to as marshes, swamps, potholes, and meadows or bottomlands that are sometimes flooded.

Appendix B

Comparability With Previous Surveys

The 1980 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation was designed for comparability with surveys in 1955, 1960, 1965, 1970, and 1975. This appendix compares the major findings of all the surveys so that trends in critical estimates can be determined, although complete comparability between any two surveys cannot be achieved.

Due to the changes in both scope and design of the 1980 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation, a concerted effort was made to include questions on the 1980 survey questionnaire that would create linkages with past surveys. Significant differences between definitions of categories of data are discussed in the following sections under the headings of the year each survey was conducted.

1955-1970 Surveys

The 1960, 1965, and 1970 National Surveys of Fishing and Hunting differ from the 1955 national survey in classification of expenditures as outlined below. In general, the surveys may be compared for totals, but details should take into account the exceptions noted below. The effect of these items should be considered in assessing trends.

1. Alaska and Hawaii were not included in the 1955 survey. The effect is probably not very significant.

2. Generally the 1970 data give much greater detail. However, the classification of some expenditures differs in the 1960, 1965, and 1970 surveys from those in 1955 in the following respects:

a. "Boats and boat motors" shown under "auxiliary equipment" were under "equipment, other" in 1955.

b. "Entrance and other privilege fees" shown separately were under "trip expenditures, other" in 1955.

c. "Snacks and refreshments" not included with "food" expenditures in the 1960-1970 reports were under "trip expenditures, other" in 1955.

d. Expenditures on equipment, magazines, club dues, licenses, and other similar items were classified by the one sport activity for which expenditures were chiefly made. In 1955, these expenditures were evenly divided among all the activities in which the sportsman took part.

e. Expenditures on "other" were reduced compared with 1955 by transferring certain items to more appropriate categories.

f. Expenditures on alcoholic beverages were included for the 1970 survey.

g. The definition of a substantial participant was changed for the 1970 survey from $5 or 3 days to $7.50 or 3 days.

3. The number of waterfowl hunters in the 1970 survey is not comparable with those reported in the 1960 and 1965 surveys. In 1960 and 1965, respondent sportsmen were not included in the waterfowl hunter total if they reported that they went waterfowl hunting but did not take the trip chiefly to hunt waterfowl. In 1970, all respondents who reported that they had hunted waterfowl during 1970, regardless of trip purpose, were included in the total. The number of hunters who did not take trips chiefly to hunt waterfowl in 1970 was 1,054,000.

1975 Survey

In contrast to previous surveys, the 1975 survey based all the estimates on responses from individuals 9 years of age and older and did not select respondents based upon substantial participation as defined above. As a result, individuals who participated less than 3 days or spent less than $7.50 on hunting or fishing were included in the estimates of participants, days of activity, and expenditures.

Categories of expenditures on hunting and fishing differed from the previous four surveys in that only major categories were reported. For example, hunting equipment expenditures were not further delineated nor were fishing equipment expenditures. Expenses for "other" items such as daily entrance fees, magazines, club dues, and dogs were categorized as "other" in the 1975 report.

In addition to the above differences the 1975 survey gathered data on species sought for the favorite hunting and fishing activity. These data replaced the "chiefly" category where hunting or fishing was the primary purpose of the trip or day of activity. Data omitted in the 1975 survey that were included in previous surveys include the respondents' population density of residence, occupation, and level of education.

1980 Survey

To the extent that comparability is achievable, additional questions were added to the 1980 survey questionnaire to enable the construction of previous definitions of categories of data. In addition, the use of "chiefly" to delimit primary purpose appeared in the 1980 survey as it had in the 1970 and prior surveys. The expenditure categories in 1980 are similar to the 1970 categories with the addition of fish finders, motor homes, and camper trucks. The definition of fishing included the use of nets or seines and spear fishing.

As in the 1975 and 1970 surveys, the 1980 survey used a two-phase process to gather information from sportsmen. In the first phase, household respondents were asked to identify hunters and fishermen 6 years of age and older residing in their household. In comparison, the 1975 and 1970 surveys screened households for participants that were eligible if they were 9 years of age and older. In the detailed interview phase, conducted in person in 1980 and 1970 and by mail in 1975, participants were eligible if they were 12 years old in 1970, 9 years old for the 1975 survey, and 16 years old for the 1980 survey. As a result, the population of hunters and fishermen is more narrowly defined in 1980 to include detailed information on only individuals 16 years old and older. However, estimates of sportsmen 6 years old and over, 9 years old and over, and 12 years old and over are available for comparison with past surveys. Detailed expenditures data were not gathered for the 6-15 - year-old category.

The principle characteristics of the 1955-1980 surveys are summarized in table B-1. The intent of this table is to increase the reader's understanding of the scope and design of past surveys compared to the 1980 survey.

Trends

Tables B-2 and B-3 contain major findings from the six national surveys on the number of participants who hunt and fish, the days they spend doing the activities, and their expenditures. These tables are for the purpose of assessing trends in fishing and hunting back to 1955 where data are available. For the purposes of the tables, the estimates for 1975 and 1980 were adjusted to conform as closely as possible to past definitions. Totals in these tables do not compare with the results elsewhere in this report or the 1975 report because of the exclusion here of individuals who participated for 2 days or less or spent less than $11 on fishing or hunting in 1975 and $15 in 1980; individuals who were younger than 12 years old are also excluded.

The 1975 survey data were further adjusted in the following ways. Those who fished for anadromous species were divided into freshwater and saltwater participants by counting all individuals who indicated anadromous fishing only in freshwater as freshwater fishermen and counting similarly for saltwater fishermen. An individual could be counted in both categories. Expenditures were designated as either freshwater or saltwater when the respondent indicated that the activity took place in only one kind of water. For those individuals who fished for anadromous species in both freshwater and saltwater, expenditures were apportioned according to the ratio of the days spent in each type of water.

The categories for small game, migratory bird, and other hunting in the 1975 survey were redefined as small game and waterfowl. All species except ducks and geese were included in small game. Participants days, and expenditures were determined as follows for waterfowl, and all residual migratory bird participants, days, and expenditures were added to small game. If an individual only hunted for ducks or geese in the migratory bird category, the days and expenditures were tallied as waterfowl. If an individual hunted both ducks and geese, the greater number of days was used as waterfowl hunting days. It was assumed that both ducks and geese were hunted on the same day. If both waterfowl and other migratory birds were hunted by the same individual, expenditures were divided by the ratio of the days.

The 1975 survey also included waterfowl hunting and days under a separate category of favorite and second favorite activity. The estimate of waterfowl hunting days derived above was subtracted from respondents' answers indicating that waterfowl hunting was either their favorite or second favorite activity. The distribution of the differences was normal with 61 percent being zero. Thus, minimal bias is introduced into the estimated waterfowl hunters or the days of waterfowl hunting by the procedures used to evaluate these data.

The only 1980 survey data that needed adjustment were the categories of small game, migratory birds, and other hunting. Expenditures for small game hunting were calculated as the sum of expenditures for small game, other hunting, and nonwaterfowl hunters who hunted for migratory birds. Expenditures for waterfowl hunting were estimated to be that portion of the migratory bird hunting expenditures that was spent by those who went waterfowl hunting.

The 1980 detailed estimates of participants, days, and expenditures were adjusted to account for exclusion of the 12-15-year-old age group from the detailed interview phase of the 1980 survey. That age group had been included in previous surveys. The 1980 estimates were increased using the proportion of total participants, days, and expenditures in 1970 that were accounted for by the 12-15-year-old age category. Adjustments were also made to account for the change between 1970 and 1980 in the percentage of the total population that was made up of 12-15-year-olds. The 1970 survey was used for making the adjustments because of the similarities between the 1970 and 1980 survey designs.

Table B-1. Major Characteristics of Surveys: 1955-1980

Characteristic	1955	1960	1965	1970	1975	1980
Survey design: screening data population of interest.	Combined with detailed phase.	Personal interview, 12 years of age and older.	Personal interview, 9 years of age and older.	Mail questionnaire, 9 years of age and older.	Telephone interview, 9 years of age and older.	Telephone/ personal interview, 6 years of age and older.
Survey design: detailed data population of interest.	Personal interview, 12 years of age and older.	Personal interview, 12 years of age and older. Substantial participants.[1]	Personal interview, 12 years of age and older. Substantial participants.[1]	Personal interview, 12 years of age and older. Substantial participants.[2]	Mail questionnaire 9 years of age and older.	Personal interview, 16 years of age and older.
Sample size:						
Screening phase-households	20,000	18,000	16,000	24,000	106,294	116,625
Detailed phase-individuals	9,328	10,300	6,400	8,700	20,211	36,416
Response rate:						
Screening phase	NA	NA	NA	NA	95%	95%
Detailed phase	NA	93%	NA	NA	37%	90%
Level of reporting	National	National	National	National	State and National	State and National
Data collection agency	Private contractor.	Bureau of the Census.	Bureau of the Census.	Bureau of the Census.	Private contractor.	Bureau of the Census.

NA Not available.
[1] Spent $5 or more or participated 3 days or more during the year.
[2] Spent $7.50 or more or participated 3 days or more during the year.

Table B-2. Fishermen and Hunters, by Region: 1955-1980

(U.S. population 12 years old and older. Numbers in thousands)

Region and year	U.S. population		Fished or hunted		Fished		Hunted	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total:								
1955	118,366	100.0	24,917	21.1	20,813	17.6	11,784	10.0
1960	131,226	100.0	30,435	23.2	25,323	19.3	14,637	11.2
1965	141,928	100.0	32,881	23.2	28,348	20.0	13,585	9.6
1970	155,230	100.0	36,277	23.4	33,158	21.4	14,336	9.2
1975	171,860	100.0	45,773	26.6	41,299	24.0	17,094	9.9
1980	184,691	100.0	46,966	25.4	41,873	22.7	16,758	9.1
New England:								
1955	7,919	100.0	1,224	15.4	1,002	12.7	589	7.4
1960	8,349	100.0	1,368	16.4	1,205	14.4	517	6.2
1965	9,256	100.0	1,650	17.8	1,488	16.0	583	6.3
1970	8,652	100.0	1,579	18.3	1,430	16.5	582	6.7
1975	9,910	100.0	2,004	20.2	1,861	18.8	566	5.7
1980	10,205	100.0	1,974	19.3	1,788	17.5	572	5.6
Middle Atlantic:								
1955	24,869	100.0	3,539	14.2	2,811	11.3	1,608	6.5
1960	26,493	100.0	3,432	13.0	2,569	9.7	1,723	6.5
1965	27,346	100.0	3,602	13.2	2,760	10.1	1,631	6.0
1970	28,244	100.0	4,539	16.1	4,504	14.4	1,731	6.1
1975	30,449	100.0	5,919	19.4	5,097	16.7	2,096	6.9
1980	30,256	100.0	5,181	17.1	4,332	14.3	2,001	6.6
East North Central:								
1955	25,733	100.0	5,489	21.3	4,583	17.8	2,538	9.9
1960	26,833	100.0	6,316	23.5	5,317	19.8	2,985	11.1
1965	28,124	100.0	6,214	22.1	5,336	19.0	2,563	9.1
1970	31,550	100.0	7,284	23.1	6,699	21.2	2,812	8.9
1975	32,796	100.0	9,049	27.6	8,181	24.9	3,392	10.3
1980	33,526	100.0	8,725	26.0	7,891	23.5	2,955	8.8
West North Central:								
1955	9,201	100.0	2,913	31.7	2,346	25.5	1,534	16.7
1960	10,149	100.0	3,383	33.3	2,855	28.1	1,709	16.8
1965	11,681	100.0	3,678	31.5	3,226	27.6	1,620	13.9
1970	12,904	100.0	4,000	31.0	3,579	27.7	1,783	13.8
1975	13,564	100.0	4,524	33.3	4,089	30.1	1,863	13.7
1980	13,826	100.0	4,770	34.5	4,220	30.5	1,965	14.2
South Atlantic:								
1955	14,336	100.0	3,223	22.5	2,805	19.6	1,449	10.1
1960	17,798	100.0	4,423	24.9	3,695	20.8	2,045	11.5
1965	20,593	100.0	5,626	27.3	5,054	24.5	1,900	9.2
1970	23,539	100.0	5,461	23.2	5,129	21.8	1,904	8.1
1975	27,127	100.0	7,110	26.2	6,479	23.9	2,494	9.2
1980	30,512	100.0	7,769	25.5	7,086	23.2	2,444	8.0

Table B-2. Fishermen and Hunters, by Region: 1955-1980 *(Continued)*

(U.S. population 12 years old and older. Numbers in thousands)

Region and year	U.S. population		Fished or hunted		Fished		Hunted	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
East South Central:								
1955	7,959	100.0	1,963	24.7	1,665	20.9	989	12.4
1960	9,277	100.0	2,778	29.9	2,207	23.8	1,510	16.3
1965	9,652	100.0	2,587	26.8	2,201	22.8	1,294	13.4
1970	9,862	100.0	2,660	27.0	2,464	25.0	1,162	11.8
1975	10,798	100.0	3,007	27.8	2,689	24.9	1,355	12.5
1980	11,771	100.0	3,614	30.7	3,173	27.0	1,567	13.3
West South Central:								
1955	10,250	100.0	2,560	25.0	2,237	21.8	1,165	11.4
1960	11,837	100.0	3,666	31.0	3,133	26.5	1,750	14.8
1965	12,724	100.0	3,713	29.2	3,278	25.8	1,571	12.3
1970	14,624	100.0	4,380	30.0	4,006	27.4	1,918	13.1
1975	16,628	100.0	5,781	34.8	5,267	31.7	2,563	15.4
1980	19,136	100.0	5,862	30.6	5,136	26.8	2,456	12.8
Mountain:								
1955	4,529	100.0	1,369	30.2	1,112	24.6	796	17.6
1960	5,222	100.0	1,646	31.5	1,372	26.3	1,120	21.4
1965	5,029	100.0	1,565	31.1	1,261	25.1	988	19.6
1970	5,656	100.0	2,044	36.1	1,769	31.3	980	17.3
1975	7,576	100.0	2,570	33.9	2,252	29.7	1,159	15.3
1980	9,160	100.0	2,903	31.7	2,500	27.3	1,268	13.8
Pacific:								
1955	13,570	100.0	2,637	19.4	2,252	16.6	1,116	8.2
1960	15,268	100.0	3,422	22.4	2,971	19.5	1,279	8.4
1965	17,523	100.0	4,246	24.2	3,744	21.4	1,433	8.2
1970	20,199	100.0	4,332	21.4	4,030	20.0	1,466	7.3
1975	23,012	100.0	5,811	25.2	5,386	23.4	1,607	7.0
1980	26,299	100.0	6,168	23.5	5,747	21.9	1,531	5.8

Table B-3. Comparison of Major Findings of the National Surveys: 1955-1980

(U.S. population 12 years old and older. Thousands)

Characteristic and activity	1955	1960	1965	1970	1975	1980
Total sportsmen	24,917	30,435	32,881	36,277	45,773	46,966
Fishermen	20,813	25,323	28,348	33,158	41,299	41,873
Freshwater	18,420	21,677	23,962	29,363	36,599	37,081
Saltwater	4,557	6,292	8,305	9,460	13,738	13,332
Hunters	11,784	14,637	13,583	14,336	17,094	16,758
Small game	9,822	12,105	10,576	11,671	14,182	14,643
Big game	4,414	6,277	6,566	7,774	11,037	12,632
Waterfowl	1,986	1,955	1,650	2,894	4,284	3,190
Expenditures	2,850,979	3,852,116	4,046,440	7,101,531	16,758,256	27,213,642
Fishermen	1,914,292	2,690,872	2,925,304	4,958,883	11,797,742	18,052,292
Freshwater	1,425,353	2,064,680	2,125,652	3,734,178	8,702,373	14,440,919
Saltwater	488,939	626,191	799,656	1,224,705	3,095,369	3,611,373
Hunters	936,687	1,161,242	1,121,135	2,142,648	4,970,514	8,938,225
Small game	494,033	726,118	615,234	945,634	2,272,310	2,930,399
Big game	323,909	345,694	418,764	952,563	2,127,916	5,246,377
Waterfowl	118,745	89,431	87,136	244,451	570,288	761,449
Days fishing and hunting	566,870	658,308	708,578	909,876	1,459,551	1,388,461
Fishing	397,447	465,769	522,759	706,187	1,058,075	1,001,637
Freshwater	338,826	385,167	426,922	592,494	890,576	840,607
Saltwater	58,621	80,602	95,837	113,694	167,499	160,678
Hunting	169,423	192,539	185,819	203,689	401,476	387,287
Small game	118,630	138,192	128,448	124,041	269,653	285,122
Big game	30,834	39,190	43,845	54,536	100,600	121,698
Waterfowl	19,959	15,158	13,526	25,113	31,223	26,116

Appendix C
Statistical Reliability Analysis

Sample Design

The 1980 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation (FHWAR) was designed to provide State-level estimates of hunting and fishing participation rates and regional estimates for other forms of wildlife recreation (e.g., wildlife observation) referred to as nonconsumptive use. The study was conducted in two stages, an initial screening of households to identify participants and a followup enumeration of selected households with participants to collect detailed data about the household's wildlife-related recreation. The 1980 FHWAR sample was selected from expired Current Population Survey samples. As such, it is a multistaged stratified sample of the U.S. population.

Current Population Survey

The expired Current Population Survey (CPS) samples used for the 1980 FHWAR survey had been selected initially from the 1970 census files with coverage in all 50 States and the District of Columbia. The samples, while active, had been continually updated to reflect new construction. The CPS samples used were located in more than 630 areas comprising more than 1,100 counties, independent cities, and minor civil divisions in the Nation.

FHWAR Screening Sample[1]

The screening sample consisted of roughly 143,000 households identified from expired CPS samples from July 1978 to June 1980. Expired CPS sample households were accumulated until the desired sample size for each State was obtained. The sample in each State was expected to yield a minimum of 1,500 interviewed households. On the average, about 2,800 households per State were contacted. Of these roughly 14.5 percent were found to be vacant or otherwise not to be enumerated. Of the remaining households roughly 5.4 percent could not be enumerated because the occupants were not found at home after repeated calls or were unavailable for some other reason. Overall, 116,000 completed household interviews were obtained for a national response rate of approximately 94.6 percent. About 60 percent of the interviewed households were contacted by telephone and the remaining interviewed households were contacted by personal visit. Interviewing for the screening sample was completed in March 1981.

Detailed Samples[1]

Sportsmen. The sportsmen sample was selected in the following manner: Each household was assigned a level of participation dependent upon the highest level of participation according to the screening interview. This procedure grouped households into two levels of participation, substantial households, that is, at least one household member fished or hunted for 30 days or more or spent more than $500 for fishing or hunting and nonsubstantial households. These households were further grouped by hunter and nonhunter classifications. Differential sampling rates were applied to the four strata such that one-third or one-fourth (depending upon the State) of the sportsman households in the nonsubstantial nonhunter stratum were revisited, one-half of the sportsman households in the nonsubstantial hunter stratum were revisited, and all of the sportsman households in the substantial hunter and nonhunter strata were revisited. Once a sportsman household was selected for detailed interviewing, all participants 16 years old and older, irrespective of their level of participation, were interviewed in detail. The detailed sportsmen sample consisted of roughly 460 households per State,[2] selected from households identified from the screening sample as containing a sportsman. On the average, about 700 sportsmen per State were selected for detailed interviewing. Of these, about 5 percent were incorrectly classified as active sportsmen during the screening phase. Of the remaining sportsmen, roughly 10 percent were not at home after repeated calls or were unavailable for some other reason, resulting in a response rate of 90 percent among eligible selected sportsmen. In all, about 30,300 detailed interviews with sportsmen

[1]For a more complete description of the FHWAR sampling schemes, contact the Statistical Methods Division, Bureau of the Census, Washington, D.C. 20233.

[2]The detailed sample sizes varied considerably by State, ranging from about 120 households for the District of Columbia to about 800 households for Texas.

were completed. Preliminary analysis indicated that more than 5 percent of those screened as inactive may have been incorrectly classified as inactive during the screening phase. Including nonresponse to both the screening phase and the detailed phase as well as misclassification of sportsmen, the overall response rate was roughly 80 percent. Detailed interviewing was completed in June 1981.

Nonconsumptive Users. The detailed nonconsumptive user sample (interviewed at the same time as the sportsman sample) was a national subsample of households identified from the screening sample as containing at least one primary nonconsumptive user, that is, a household member 16 years old and older who took special interest in wildlife around the home, or on a trip. The nonconsumptive user national subsample was located in 461 of more than 630 areas that made up the national screening sample. One-half of the national subsample, roughly 1900 households, was selected from the sample of households containing sportsmen. These households had already been selected for detailed interviewing for the sportsmen sample. The other half was selected from the universe of households containing nonconsumptive users only. The sample was selected as follows: The sportsmen households, containing at least one nonconsumptive user, were sorted into 14 State clusters, and within each cluster, the households were stratified by substantial hunter, substantial nonhunter, nonsubstantial hunter, and nonsubstantial nonhunter. The households were further sorted by triptaker and nontriptaker households (two categories of nonconsumptive users). The nonconsumptive user only households were sorted into the 14 State clusters and further sorted by triptaker and nontriptaker. Differential sampling was applied across the 14 State clusters so that a self-weighting national sample would result. Roughly 6,960 persons were designated for interviews. Of these, about 9 percent were incorrectly classified as active during the screening phase. Of the remaining nonconsumptive users, about 5 percent were not at home after repeated calls or were unavailable for some other reason, resulting in a response rate of 95 percent of eligible selected nonconsumptive users. In all, about 6,000 interviews with nonconsumptive users were completed. Preliminary analysis indicated that more than 9 percent of those screened as inactive may have been incorrectly classified during the screening phase. Including nonresponse to both the screening phase and the detailed phase as well as misclassification of nonconsumptive users, the overall response rate was roughly 82 percent.

Estimation Procedure

The estimation procedure for the three samples of the 1980 FHWAR survey involved the inflation of the weighted sample results to independent estimates of the population. A brief description of the major weight components by sample is given below.

Screening Sample

Base weight. The reciprocal of the probability of selecting a household.

Household noninterview adjustment. A factor to adjust the weight assigned to interviewed households to account for households eligible for interview but for which an interview was not obtained.

First-stage adjustment. The more than 630 areas designated for our samples were selected from roughly 1,900 such areas of the United States. Some of our sample areas represent only themselves and are referred to as self-representing. The remaining areas represent other areas similar in selected characteristics and are thus designated nonself-representing. The first-stage factor reduced the component of variation arising out of sampling the nonself-representing areas.

Second-stage adjustment. This adjustment involved the inflation of the sample results to independently derived postcensal estimates of the civilian noninstitutional and nonbarrack military populations for the States. Overall, the second-stage ratio adjustment was 1.128.

Sportsman Sample

Base weight. The final person-tabulation weight developed from the weighting of the screening sample.

Stratum adjustment. This factor inflated the weights of the sample households selected from the four level-of-participation categories to account for all households in the category.

Sportsman noninterview. This factor adjusted the weights of the interviewed sportsmen to account for sportsmen intended for interview but who for some reason were not interviewed.

Nonconsumptive User Sample

Base weight. The base weight applied to nonconsumptive users was a product of two components, a screening weight and a self-weighting adjustment. The procedure for developing the screening weight involved the application of the weight components shown for the screening sample above, however, the weight components were only applied to households from the 461 areas of the sample. The self-weighting factor adjusted the weight to account for the differential sampling of households within the clusters of States.

Nonconsumptive user noninterview adjustments. This factor adjusted the weights of the interviewed nonconsumptive users to account for nonconsumptive users intended for interview but who for some reason were not interviewed.

Reliability of Sample Estimates

The statistics[3] that this survey produced are estimates derived from a sample and hence are apt to differ somewhat from the actual values being estimated. This occurs because there are two types of errors possible in an estimate based on a sample survey—sampling errors and nonsampling errors.

Nonsampling Errors

Let us suppose that a comparable complete enumeration was conducted, that is, an interview is attempted for every person 16 years old and older in the United States. Chances are we would still not correctly estimate every parameter (for example, the proportion of persons who fished) under consideration. In this instance, the difference is due solely to nonsampling errors. Nonsampling errors occur also in sample surveys and can be attributed to many sources, including inability to obtain information about all cases in the sample, definitional difficulties, differences in the interpretation of questions, inability or unwillingness on the part of the respondents to provide correct information, inability to recall information, errors made in collection such as in recording or coding the data, errors made in processing the data, and errors made in estimating values for missing data. Explicit measures of these errors are generally not available. It is believed that most of the important operational and out-of-range response errors were detected and corrected in the course of the Census Bureau's review of the data for accuracy and consistency. Unfortunately, some response and operational errors may remain.

Another source of error in sample surveys is the failure to represent all units with the sample (undercoverage). There were two particular undercoverage problems in this survey: sample attrition, that is, loss of the original sample due to nonreturns from the field, processing, etc., and failure to represent new construction in the sampling frame for the period roughly between July 1978 and June 1980. Overall undercoverage as compared to the level of the 1980 decennial census is about 12.8 percent. Generally, undercoverage is larger for males than for females and larger for blacks and other races combined than for whites. Ratio estimation to independent age-sex-race population controls, as described previously, partially corrects for the bias due to survey undercoverage. However, biases exist in the estimates to the extent that missed persons in missed households or missed persons in interviewed households have different characteristics than interviewed persons in the same age-sex-race group.

A coverage improvement sample was included with the CPS samples beginning in 1978 in order to provide coverage of mobile homes and new construction housing units, which previously had no chance for selection in the CPS sample. The inclusion of this coverage improvement sample in the FHWAR does not have a significant effect on the estimates.

Sampling Errors

The particular sample used for the 1980 FHWAR survey is one of a large number of all possible probability samples of the same size that could have been selected using the same sample design. Estimates derived from the different samples would differ from each other. The expected deviation of a sample result from the average of all possible samples is called the sampling error. The exact sampling error is unknown; however, guides to the potential size of the sampling error are provided by the standard error of the estimate.

The standard error of a survey estimate attempts to provide a measure of this variation among the estimates from the possible samples and thus is a measure of the precision with which an estimate from a particular sample approximates the average result of all possible samples. The standard errors that were calculated for this survey also partially measure the effect of variable nonsampling errors but do not measure any systematic biases in the data.

The estimate and its associated standard error may be used to construct a confidence interval, that is, an interval having a prescribed probability that it would include the average result of all possible samples. The chances are about 95 out of 100 (95 percent) that the interval from two standard errors below the estimate to two standard errors above the estimate would include the average value of all possible samples. Of course, any particular 95-percent confidence interval may or may not contain the average value of all possible samples. But for a particular sample, one can say with 95-percent confidence that the average of all possible samples is included in the constructed interval. Also frequently used are 68-percent and 99-percent confidence intervals, which are obtained by constructing a one standard error interval (plus or minus) and a 2½ standard error interval (plus or minus), respectively, about the estimate. The chances are about 2 out of 3 that the average result of all possible samples is contained in the 68-percent confidence interval and 99 out of 100 that the average value of all possible samples is included in the 99-percent confidence interval.

Standard Error Tables and Their Use

In order to derive standard errors that would be applicable to a large number of estimates and could be prepared at a moderate cost, a number of approximations were required. Therefore, instead of providing an individual standard error for each estimate, generalized sets of standard errors are provided for various types of characteristics. As a result, the sets of standard errors provided give an indication of the

[3]Statistics for the population 6 years old and older, 6-15 years old, 9 years old and older, and 12 years old and older were derived from the screening interviews; statistics for the population 16 years old and older were derived from the detailed interviews.

order of magnitude of the sampling error of an estimate rather than the precise sampling error.

The figures presented in the generalized tables C-1 through C-15 are approximations to standard errors of various estimates shown in the report. Standard errors for intermediate values not shown in the generalized tables of standard errors may be approximated by interpolation. Table C-17 presents the actual standard errors for some characteristics shown in the report.

Two or three parameters are used (denoted *a*, *b*, and *c*) to calculate standard errors for each type of characteristic in the generalized standard error tables; they are presented in tables C-18 through C-21. These parameters were used to calculate the standard errors for numbers and percentages of sportsmen, fishermen, or nonconsumptive users and the aggregates, trips, days, and expenditures. Direct computation of the standard errors will give more accurate results than the use of the standard error tables. Methods for direct computation are given in the following sections.

Standard Errors of Estimated Numbers

The approximate standard error σ_x of an estimated number shown in this report can be obtained in two ways. It may be obtained by use of the generalized standard error tables or formulas 1 or 2. Formula 1 is used for standard errors of levels of sportsmen, fishermen, hunters, or nonconsumptive users.

$$\sigma_x = \sqrt{ax^2 + bx} \qquad (1)$$

where x is the size of the estimate and a and b are the parameters in the table associated with the particular characteristic. Use of this formula will provide more accurate results than the use of the generalized standard error tables.

$$\sigma_x = \sqrt{ax^2 + bx + \frac{cx^2}{y}} \qquad (2)$$

Formula 2 is used for standard errors of the aggregates, trips, days, and expenditures. Here x is again the size of the estimates; y is the base of the estimate; and a, b, and c are the parameters in the tables associated with the particular characteristics.

Illustration of the Computation of the Standard Error of an Estimated Number. Table 1 of this report shows that 46,712,652 persons 16 years old and older either fished or hunted. Using formula 1 and the parameters $a = -.00002727$ and $b = 4{,}611$ from table C-19, the estimate of the standard error is

$$\sigma_x = [-.00002727(46{,}712{,}652)^2 + (4{,}611)(46{,}712{,}652)]^{1/2}$$
$$\doteq 394{,}800^4$$

This means that the chances are 68 out of 100 that the estimate would have been a figure differing from the average of all possible samples by less than 394,800.[4] Similarly, the chances are 95 out of 100 that the estimate would have been a figure differing from the average of all possible samples by less than 789,600 (twice the standard error); that is, the 95-percent confidence interval for the number of persons 16 years old and older who either fished or hunted is from 45,923,052 to 47,502,252.

Table 2 shows that 42,058,866 fishermen 16 years old and older engaged in 857,565,623 days of participation in all fishing. Using formula 2 and the parameters $a = .00002204$, $b = 95{,}029$, and $c = 6871$ from table C-21, the estimated of the standard error is

$$\sigma_x = \left[(.00002204)(857{,}565{,}623)^2 + (95{,}029)(857{,}565{,}623) + \frac{(6{,}871)(856{,}565{,}623)^2}{42{,}058{,}866}\right]^{1/2}$$
$$\doteq 14{,}760{,}000$$

The chances are 68 out of 100 that the estimate would have been a figure differing from the average of all possible samples by less than 14,760,000. The chances are 95 out of 100 that the estimate would have been a figure differing from the average of all possible samples by less than 29,520,000 (twice the standard error); that is, the 95-percent confidence interval for the number of days of participation for all fishermen 16 years old and older is from 828,045,623 to 887,086,623.

Table 46 shows that there were 64,566 residents of the State of Nevada, aged 16 and older, who hunted in 1980. Using formula 1 and the parameters $a = -.0008712$ and $b = 547$ from table C-19, the estimate of the standard error is

$$\sigma_x = [(-.0008712)(64{,}566)^2 + (547)(64{,}566)]^{1/2}$$
$$\doteq 5{,}630$$

Using standard error table C-9 and the factor shown for the State of Nevada in table C-19, the estimate of the standard error is approximately 5,800 (i.e., 11,165 × .52).

Standard Errors of Estimated Percentages

The reliability of an estimated percentage, computed by using sample data for both numerator and denominator, depends upon both the size of the percentage and the size of the total upon which this percentage is based. Estimated percentages are relatively more reliable than the corresponding estimates of the numerators of the percentages, particularly if the percentages are 50 percent or more. Linear interpolation in the tables of standard errors of percentages may be used to obtain standard errors for intermediate values of x and p. Or formula 3, from which the tabulated standard errors $\sigma_{(x,p)}$ are computed, can be used directly. Direct computation will give more accurate results than linear interpolation. Formula 3 must be used to compute standard errors of percentages for all aggregate estimates.

$$\sigma_{(x,p)} = \sqrt{\frac{b}{x}p\ (100 - p)} \qquad (3)$$

Here x is the size of the subclass of sportsmen, hunters, days, etc., which

[4] Interpolating in table 2 gives an approximate standard error of 394,000.

is the base of the percentage, p is the percentage ($0 \leq p \leq 100$), and b is the parameter in the tables associated with the particular characteristic in the numerator of the percentage.

Illustration of the Computation of the Standard Error of an Estimated Percentage. Table 2 of this report shows that of the 751,197,444 total trips taken by fishermen 16 years old and older, 15.0 percent were trips of 2 or more days. From table C-21 the appropriate b parameter is 95,029. Using formula 3, the approximate standard error of 15.0 percent is

$$\sigma_{(x,p)} = \left[\frac{95{,}029}{751{,}197{,}444} \cdot (15.0) \cdot (100.0 - 15.0)\right]^{1/2}$$

$$\doteq 0.4 \text{ percent}$$

This means that the 68-percent confidence interval for the percentage of trips of 2 or more days, 15.0 percent, is from 14.6 to 15.4 percent, and the 95-percent confidence interval is from 14.2 to 15.8 percent, that is, $15.0 \pm (2)(0.4)$.

Standard Errors of Estimated Averages

Certain mean values for sportsmen, fishermen, etc. shown in the report were calculated as the ratio of two numbers. For example average days per fisherman is calculated as:

$$\frac{x}{y} = \frac{\text{total days}}{\text{total fishermen}}$$

Standard errors for these averages may be approximated by the use of formula 4.

$$\sigma_{x/y} = \left[\left(\frac{x}{y}\right)^2 \left(\frac{\sigma_x^2}{x^2} + \frac{\sigma_y^2}{y^2} - 2\varrho \frac{\sigma_x}{x} \frac{\sigma_y}{y}\right)\right]^{1/2} \quad (4)$$

In formula 4, ϱ represents the correlation coefficient between the numerator and the denominator of the estimate. In the above example and for other ratios of this kind, use 0.7 as an estimate of ϱ.

Illustration of the Computation of the Standard Error of an Estimated Average. Table 2 of the report shows that the average days per fishermen 16 years old and older for all fishing was 20.0 days. Using formulas 1 and 2 above, we compute the standard error on total days and total fishermen to be 14,760,000 and 381,700 respectively. The standard error on the average $\sigma_{x/y}$ is

$$\sigma_{x/y} = \left\{\left(\frac{857{,}565{,}623}{42{,}058{,}866}\right)^2 \cdot \left[\frac{381{,}700^2}{42{,}085{,}866^2} + \frac{14{,}760{,}000^2}{857{,}565{,}623^2} - 2\times(.7)\frac{381{,}700}{42{,}058{,}866} \cdot \frac{14{,}760{,}000}{857{,}565{,}623}\right]\right\}^{1/2}$$

$$= 0.3$$

The chances are 68 out of 100 that the average would have been a figure differing from the average of all possible samples by less than 0.3. The chances are 95 out of 100 that the average would have been a figure differing from the average of all possible samples by less than 0.6 (twice the standard error); that is, the 95-percent confidence interval for average days per fishermen 16 years old and older is from 19.4 to 20.6.

Table C-1. Standard Errors of National Estimated Numbers of Sportsmen, Fishermen, or Hunters

(68 chances out of 100. Numbers in thousands. Applicable only to estimates from populations 6 years old and older, 6-15 years old, 9 years old and older, and 12 years old and older)

Size of estimate	Standard error
5	3
10	4
15	5
25	6
50	9
100	12
250	19
500	27
1,000	39
2,500	61
5,000	86
10,000	120
20,000	165
40,000	220
60,000	253

Table C-2. Standard Errors of Estimated Percentages of Sportsmen, Fishermen, or Hunters

(68 chances out of 100. Numbers in thousands. Applicable only to estimates from populations 6 years old and older, 6-15 years old, 9 years old and older, and 12 years old and older)

Estimated percentage	Base of percentage										
	50	100	250	500	1,000	2,500	5,000	10,000	20,000	40,000	60,000
1 or 99	1.7	1.2	0.8	0.5	0.4	0.2	0.2	0.1	0.1	0.1	0.05
2 or 98	2.4	1.7	1.1	0.8	0.5	0.3	0.2	0.2	0.1	0.1	0.1
5 or 95	3.8	2.7	1.7	1.2	0.8	0.5	0.4	0.3	0.2	0.1	0.1
10 or 90	5.2	3.7	2.3	1.6	1.2	0.7	0.5	0.4	0.3	0.2	0.2
15 or 85	6.2	4.4	2.8	2.0	1.4	0.9	0.6	0.4	0.3	0.2	0.2
25 or 75	7.5	5.3	3.4	2.4	1.7	1.1	0.8	0.5	0.4	0.3	0.2
50	8.7	6.1	3.9	2.7	1.9	1.2	0.9	0.6	0.4	0.3	0.3

Table C-3. Standard Errors for State Estimates of Sportsmen, Fishermen, or Hunters

(68 chances out of 100. Numbers in thousands. Applicable only to estimates for populations 6 years old and older, 6-15 years old, 9 years old and older, and 12 years old and older)

Size of estimate	Standard error
3	2
5	3
10	4
25	6
50	9
100	12
250	19
500	25
1,000	33

Note: These standard errors must be used with the factors listed in table C-18. For standard errors of percentages of fishermen or hunters for State estimates, apply the appropriate factor from table C-18 to the standard errors in table C-2.

Table C-4. Standard Errors of National Estimated Numbers of Sportsmen or Fishermen

(68 chances out of 100. Numbers in thousands. Applicable only to estimates from the population 16 years old and older)

Size of estimate	Standard error
15	8
25	11
50	15
100	21
250	34
500	48
1,000	68
2,500	107
5,000	150
10,000	208
15,000	251
20,000	285
30,000	337
40,000	375
50,000	403

Table C-5. Standard Errors of Estimated Percentages of Sportsmen or Fishermen

(68 chances out of 100. Numbers in thousands. Applicable only to estimates from the population 16 years old and older)

Estimated percentage	Base of Percentage										
	250	500	1,000	2,500	5,000	10,000	15,000	20,000	30,000	40,000	50,000
1 or 99	1.4	1.0	0.7	0.4	0.3	0.2	0.2	0.2	0.1	0.1	0.1
2 or 98	1.9	1.3	1.0	0.6	0.4	0.3	0.2	0.2	0.2	0.2	0.1
5 or 95	3.0	2.1	1.5	0.9	0.7	0.5	0.4	0.3	0.3	0.2	0.2
10 or 90	4.1	2.9	2.0	1.3	0.9	0.6	0.5	0.5	0.4	0.3	0.3
15 or 85	4.8	3.4	2.4	1.5	1.1	0.8	0.6	0.5	0.4	0.4	0.3
25 or 75	5.9	4.2	2.9	1.9	1.3	0.9	0.8	0.7	0.5	0.5	0.4
50	6.8	4.8	3.4	2.1	1.5	1.1	0.9	0.8	0.6	0.5	0.5

Table C-6. Standard Errors for State Estimates of Sportsmen or Fishermen

(68 chances out of 100. Numbers in thousands. Applicable only to estimates from the population 16 years old and older)

Size of the estimate	Standard error
10	7
15	8
25	11
50	15
100	21
250	32
500	43
1,000	54

Note: These standard errors must be used with the factors listed in table C-19. For State estimates greater than 1 million use formula 1 and the parameters in table C-19 to determine the standard errors of the estimates. For standard errors of percentages of sportsmen or fishermen for State estimates, apply the appropriate factors from table C-19 to the standard errors in table C-5.

Table C-7. Standard Errors of National Estimated Numbers of Hunters

(68 chances out of 100. Numbers in thousands. Applicable only to estimates from the population 16 years old and older)

Size of estimate	Standard error
5	3
10	4
15	5
25	7
50	10
100	14
250	22
500	32
1,000	45
2,500	70
5,000	99
10,000	137
15,000	165
20,000	188

Table C-8. Standard Errors of Estimated Percentages of Hunters

(68 chances out of 100. Numbers in thousands. Applicable only to estimates from the population 16 years old and older)

Estimated percentage	Base of percentage									
	50	100	250	500	1,000	2,500	5,000	10,000	15,000	20,000
1 or 99	2.0	1.4	0.9	0.6	0.4	0.3	0.2	0.1	0.1	0.1
2 or 98	2.8	2.0	1.3	0.9	0.6	0.4	0.3	0.2	0.2	0.1
5 or 95	4.4	3.1	1.9	1.4	1.0	0.6	0.4	0.3	0.3	0.2
10 or 90	6.0	4.2	2.7	1.9	1.3	0.8	0.6	0.4	0.3	0.3
15 or 85	7.1	5.1	3.2	2.3	1.6	1.0	0.7	0.5	0.4	0.4
25 or 75	8.7	6.1	3.9	2.7	1.9	1.2	0.9	0.6	0.5	0.4
50	10.0	7.1	4.5	3.2	2.2	1.4	1.0	0.7	0.6	0.5

Table C-9. Standard Errors for State Estimates of Hunters

(68 chances out of 100. Numbers in thousands. Applicable only to estimates from the population 16 years old and older)

Size of the estimate	Standard error
10	4
15	5
25	7
50	10
100	14
250	21
500	29

Note: These standard errors must be used with the factors in table C-19. For State estimates greater than 500,000, use formula 1 and the parameters in table C-19 to determine the standard errors of the estimates. For standard errors of percentages of hunters for State estimates, apply the appropriate factor from table C-19 to the standard errors in table C-8.

Table C-10. Standard Errors for Estimated Number of Trips or Days of Participation for Sportsmen or Fishermen

(68 chances out of 100. Numbers in ten thousands. Applicable only to estimates from the population 16 years old and older)

Base of the estimate	Estimated number of trips or days										
	25	50	100	250	500	1,000	2,500	5,000	10,000	40,000	86,000
10	17	25	41	82							
25	16	23	35	64	108						
50		23	33	57	91	153					
100			32	53	81	128	259				
250				51	74	111	203	342			
500					71	103	180	287	484		
1,000						101	168	255	407	1,231	
2,000							161	238	363	982	1,877
4,700										806	1,436

Table C-11. Standard Errors for Estimated Number of Trips or Days of Participation for Hunters

(68 chances out of 100. Numbers in ten thousands. Applicable only to estimates from the population 16 years old and older)

Base of the estimate	Estimated number of trips or days										
	25	50	100	250	500	1,000	2,500	5,000	10,000	20,000	40,000
10	9	15	27	63							
25	7	12	20	43	81						
50			17	34	61	115					
100				28	47	86	200				
250					37	62	135	254			
500						52	105	190	357		
1,000							86	147	264	496	
1,500								129	225	412	783
1,750										384	724

Note: For standard errors of State estimates of days, use the parameters shown in table C-21.

Table C-12. Standard Errors for Estimated Expenditures for Sportsmen or Fishermen

(68 chances out of 100. Numbers in ten thousands. Applicable only to estimates from the population 16 years old and older)

Base of the estimate	Estimated expenditures (dollars)															
	50	100	250	500	1,000	2,500	5,000	10,000	25,000	50,000	100,000	250,000	500,000	1,000,000	2,000,000	2,700,000
10	34	55	113	210	401	973										
25	31	47	87	150	272	635	1,237									
50		44	76	124	212	471	898	1,750								
100			70	108	175	362	666	1,270	3,080							
250				97	148	277	475	862	2,012	3,923						
500						242	392	674	1,495	2,854	5,565	13,695				
1,000							343	556	1,153	2,126	4,059	9,847	19,489			
2,000									937	1,645	3,038	7,187	14,093	27,900	55,512	74,840
4,700											2,250	5,063	9,722	19,027	37,630	50,651

Table C-13. Standard Errors for Estimated Expenditures for Hunters

(68 chances out of 100. Numbers in ten thousands. Applicable only to estimates from the population 16 years old and older)

Base of the estimate	Estimated expenditures (dollars)															
	25	50	100	250	500	1,000	2,500	5,000	10,000	25,000	50,000	100,000	200,000	400,000	600,000	900,000
10	11	18	33	76	149	293	726									
25	9	14	24	52	98	189	463	920								
50		13	20	41	74	138	332	655	1,301							
100			18	34	58	104	242	470	927	2,296	4,579					
250				29	46	76	164	309	598	1,464	2,908	5,794				
500					41	64	129	232	437	1,049	2,069	4,108	8,186			
1,000							107	182	328	761	1,482	2,921	5,799	11,555		
1,400										656	1,264	2,479	4,908	9,765	14,622	21,908
1,700											1,156	2,257	4,459	8,862	13,264	19,868

Table C-14. Standard Errors of Estimated Numbers of Nonconsumptive Users

(68 chances out of 100. Numbers in thousands. Applicable only to estimates from the population 16 years old and older)

Size of the estimate	Standard error
50	31
100	44
250	69
500	98
1,000	139
2,500	221
5,000	315
10,000	452
15,000	561
25,000	745
50,000	1,120
80,000	1,511
94,000	1,684

Note: For standard errors of regional estimates of nonconsumptive users 16 years old and older, multiply the appropriate factor from table C-16 by the standard error in this table.

Table C-15. Standard Errors of Estimated Percentages of Nonconsumptive Users

(68 chances out of 100. Numbers in thousands. Applicable only to estimates from the population 16 years old and older)

Estimated percentage	Base of percentage									
	500	1,000	2,500	5,000	10,000	15,000	25,000	50,000	80,000	94,000
1 or 99	2.0	1.4	0.9	0.6	0.4	0.4	0.3	0.2	0.2	0.1
2 or 98	2.7	1.9	1.2	0.9	0.6	0.5	0.4	0.3	0.2	0.2
5 or 95	4.3	3.0	1.9	1.4	1.0	0.8	0.6	0.4	0.3	0.3
10 or 90	5.9	4.2	2.6	1.9	1.3	1.1	0.8	0.6	0.5	0.4
15 or 85	7.0	5.0	3.1	2.2	1.6	1.3	1.0	0.7	0.6	0.5
25 or 75	8.5	6.0	3.8	2.7	1.9	1.6	1.2	0.9	0.7	0.6
50	9.8	6.9	4.4	3.1	2.2	1.8	1.4	1.0	0.8	0.7

Note: For standard errors of regional estimates of percentages of nonconsumptive users 16 years old or older, multiply the appropriate factor from table C-16 by the standard error obtained in this table.

Table C-16: Factors for Obtaining Standard Errors of Regional Estimates

Region	Factor
New England	1.11
Middle Atlantic	1.08
East North Central	1.41
West North Central	1.24
South Atlantic	1.10
East South Central	1.21
West South Central	0.97
Mountain	1.03
Pacific	1.09

Table C-17. Standard Errors for Selected Nonconsumptive-Use Items in Tables 50, 51 and 55

(68 chances out of 100. U.S. population 16 years old and older)

Item	Standard error of the estimate (thousands)
TABLE 50	
Trips, total	20,818
1 day	20,083
2 or more days	3,714
In-State	19,291
1 day	18,864
2 or more days	2,672
Out-of-State	3,191
1 day	2,311
2 or more days	1,492
Other countries	1,574
1 day	690
2 or more days	1,450
TABLE 51	
Days of participation, total	21,880
Observing	22,366
Photographing	5,186
Feeding	12,417
Scouting[1]	3,533
TABLE 56	
Expenditures, total	102,741
Food and drink	95,039
Lodging	58,358
Transportation:	
Public	66,988
Private	82,645
Guide fees	7,409
Pack trip	6,764
Land-use fees:	
Public	7,479
Private	6,200
Equipment rental	22,819

[1]Includes other countries.

Table C-18. *a* and *b* Parameters and Factors for Calculating Approximate Standard Errors for Sportsmen, Fishermen, or Hunters 6 Years Old and Older, 6-15 Years Old, 9 Years Old and Older, and 12 Years Old and Older

State	*a*	*b*	Factor
UNITED STATES	−.0000073584093	1.504	
Alabama	−.0004580	1,599	1.03
Alaska	−.0005435	178	0.34
Arizona	−.0004241	1,057	0.84
Arkansas	−.0004540	931	0.79
California	−.0001993	4,286	1.69
Colorado	−.0004635	1,204	0.89
Connecticut	−.0004261	1,206	0.90
Delaware	−.0004718	250	0.41
District of Columbia	−.0005183	294	0.44
Florida	−.0002668	2,447	1.28
Georgia	−.0003720	1,824	1.10
Hawaii	−.0004448	366	0.49
Idaho	−.0005524	457	0.55
Illinois	−.0002678	2,737	1.35
Indiana	−.0004013	1,974	1.15
Iowa	−.0004679	1,211	0.90
Kansas	−.0004827	1,011	0.82
Kentucky	−.0004548	1,481	0.99
Louisiana	−.0004205	1,582	1.03
Maine	−.0005562	558	0.61
Maryland	−.0003367	1,277	0.92
Massachusetts	−.0002084	1,087	0.85
Michigan	−.0002592	2,155	1.20
Minnesota	−.0004213	1,547	1.01

Table C-18. *a* and *b* Parameters and Factors for Calculating Approximate Standard Errors for Sportsmen, Fishermen, or Hunters 6 Years Old and Older, 6-15 Years Old, 9 Years Old and Older, and 12 Years Old and Older—Cont.

State	*a*	*b*	Factor
Mississippi	−.0004478	998	0.81
Missouri	−.0004000	1,773	1.09
Montana	−.0005389	373	0.50
Nebraska	−.0005747	798	0.73
Nevada	−.0004581	344	0.48
New Hampshire	−.0005069	425	0.53
New Jersey	−.0002122	1,421	0.97
New Mexico	−.0004887	565	0.61
New York	−.0002082	3,298	1.48
North Carolina	−.0001948	1,031	0.83
North Dakota	−.0005784	327	0.47
Ohio	−.0002678	2,597	1.31
Oklahoma	−.0004575	1,246	0.91
Oregon	−.0004660	1,126	0.87
Pennsylvania	−.0002665	2,875	1.38
Rhode Island	−.0004654	395	0.51
South Carolina	−.0003931	1,092	0.85
South Dakota	−.0006233	375	0.50
Tennessee	−.0003545	1,483	0.99
Texas	−.0002009	2,580	1.31
Utah	−.0004698	592	0.63
Vermont	−.0005876	274	0.43
Virginia	−.0003787	1,793	1.09
Washington	−.0004209	1,592	1.03
West Virginia	−.0004768	841	0.75
Wisconsin	−.0003390	1,440	0.98
Wyoming	−.0005312	227	0.39

C-19. *a* and *b* Parameters and Factors for Calculating Approximate Standard Errors for Sportsmen, Fishermen, or Hunters, 16 Years Old and Older

State	Sportsmen or Fishermen		Hunters		
	a	*b*	*a*	*b*	Factors
UNITED STATES	−.00002727145	4,611	−.000011834760	2,001	
Alabama	−.0016540	4,707	−.007123	2,062	1.01
Alaska	−.0022167	577	−.0009835	256	0.35
Arizona	−.0017468	3,583	−.0007605	1,560	0.88
Arkansas	−.0017910	3,015	−.0007835	1,319	0.81
California	−.0008952	16,115	−.0003891	7,004	1.87
Colorado	−.0017855	3,847	−.0007844	1,690	0.91
Connecticut	−.0017930	4,227	−.0007779	1,834	0.96
Delaware	−.0021223	930	−.0009197	403	0.45
District of Columbia	−.0024566	1,202	−.0010668	522	0.51
Florida	−.0011367	8,879	−.0004955	3,870	1.39
Georgia	−.0014848	5,900	−.0006495	2,581	1.13
Hawaii	−.0019914	1,342	−.0008636	582	0.54
Idaho	−.0021324	1,424	−.0009344	624	0.56
Illinois	−.0011873	10,034	−.0005169	4,368	1.48
Indiana	−.0014207	5,728	−.0006196	2,498	1.11
Iowa	−.0017440	3,744	−.0007667	1,646	0.90
Kansas	−.0018469	3,234	−.0008110	1,420	0.84
Kentucky	−.0016780	4,469	−.0007378	1,965	0.98
Louisiana	−.0014834	4,498	−.0006474	1,963	0.99
Maine	−.0019811	1,632	−.0008643	712	0.59
Maryland	−.0014445	4,522	−.0006277	1,965	0.99
Massachusetts	−.0009935	4,338	−.0004312	1,883	0.97
Michigan	−.0009802	6,644	−.0004275	2,898	1.20
Minnesota	−.0015054	4,567	−.0006626	2,010	1.00

C-19. *a* and *b* Parameters and Factors for Calculating Approximate Standard Errors for Sportsmen, Fishermen, or Hunters, 16 Years Old and Older—Cont.

State	Sportsmen or Fishermen		Hunters		
	a	*b*	*a*	*b*	Factors
Mississippi	−.0016708	2,977	−.0007307	1,302	0.80
Missouri	−.0014361	5,297	−.0006274	2,314	1.07
Montana	−.0020200	1,153	−.000882	507	0.50
Nebraska	−.0020420	2,351	−.0008972	1,033	0.71
Nevada	−.0019908	1,250	−.0008712	547	0.52
New Hampshire	−.0017747	1,227	−.0007695	532	0.52
New Jersey	−.0009113	5,071	−.0003970	2,209	1.05
New Mexico	−.0020653	1,922	−.0009016	839	0.65
New York	−.0009056	11,982	−.0003938	5,210	1.61
North Carolina	−.0014916	6,490	−.0006578	2,862	1.19
North Dakota	−.0022329	1,041	−.0009824	458	0.48
Ohio	−.0011205	8,952	−.0004874	3,894	1.39
Oklahoma	−.0018690	4,224	−.0008150	1,842	0.96
Oregon	−.0019483	3,936	−.0008494	1,716	0.92
Pennsylvania	−.0009306	8,405	−.0004048	3,656	1.35
Rhode Island	−.0019992	1,424	−.0008676	618	0.56
South Carolina	−.0017290	3,893	−.0007546	1,699	0.92
South Dakota	−.0018336	908	−.0008118	402	0.44
Tennessee	−.0015695	5,419	−.0006873	2,373	1.08
Texas	−.0009118	9,535	−.0003990	4,173	1.43
Utah	−.0019509	1,937	−.0008601	854	0.65
Vermont	−.0020442	786	−.0008869	341	0.41
Virginia	−.0015908	6,213	−.0007087	2,768	1.16
Washington	−.0018140	5,712	−.0007962	2,507	1.11
West Virginia	−.0017785	2,586	−.0007744	1,126	0.75
Wisconsin	−.0013651	4,778	−.0006031	2,111	1.02
Wyoming	−.0021904	766	−.0009580	335	0.41

Table C-20. *a*, *b*, and *c* Parameters for Calculating Approximate Standard Errors for Expenditures

(U.S. population 16 years old and older)

State	Sportsmen or Fishermen			Hunters		
	a	*b*	*c*	*a*	*b*	*c*
UNITED STATES	.00003754	160,256	14,497	−.000006297	24,875	8,345
Alabama	.0022604	162,411	14,724	−.0003792	25,239	8,490
Alaska	.0030000	19,714	1,793	−.0005042	3,069	1,036
Arizona	.0023986	124,223	11,246	−.0004021	19,290	6,477
Arkansas	.0024505	104,154	9,439	−.0004111	16,183	5,442
California	.0012310	559,480	50,628	−.0002063	86,858	29,151
Colorado	.0024353	132,481	12,017	−.0004087	20,594	6,933
Connecticut	.0024682	146,912	13,290	−.0004136	22,804	7,650
Delaware	.0029195	32,301	2,922	−.0004893	5,014	1,682
District of Columbia	.0033818	41,779	3,779	−.0005667	6,485	2,176
Florida	.0015596	307,572	27,851	−.0002615	47,767	16,045
Georgia	.0020315	203,818	18,471	−.0003408	31,668	10,648
Hawaii	.0027413	46,643	4,219	−.0004594	7,240	2,429
Idaho	.0029149	49,147	4,455	−.0004890	7,637	2,569
Illinois	.0016308	347,972	31,499	−.0002734	54,032	18,142
Indiana	.0019482	198,315	17,960	−.0003267	30,801	10,348
Iowa	.0023774	128,865	11,691	−.0003990	20,034	6,745
Kansas	.0025198	111,399	10,105	−.0004229	17,317	5,829
Kentucky	.0022874	153,816	13,955	−.0003839	23,913	8,052
Louisiana	.0020332	155,662	14,100	−.0003410	24,179	8,125
Maine	.0027165	56,502	5,118	−.0004555	8,776	2,949
Maryland	.0019866	157,017	14,208	−.0003330	24,376	8,180
Massachusetts	.0013677	150,778	13,640	−.0002292	23,404	7,851
Michigan	.0013439	229,997	20,830	−.0002254	35,723	12,002
Minnesota	.0020505	157,062	14,253	−.0003442	24,421	8,225

Table C-20. *a*, *b*, and *c* Parameters for Calculating Approximate Standard Errors for Expenditures—Cont.

(U.S. population 16 years old and older)

State	Sportsmen or Fishermen			Hunters		
	a	*b*	*c*	*a*	*b*	*c*
Mississippi	.0022874	102,905	9,324	−.0003837	15,987	5,375
Missouri	.0019675	183,229	16,599	−.0003300	28,463	9,566
Montana	.0027527	39,671	3,600	−.0004621	6,168	2,077
Nebraska	.0027852	80,961	7,344	−.0004674	12,585	4,237
Nevada	.0027224	43,159	3,911	−.0004567	6,706	2,255
New Hampshire	.0024433	42,652	3,859	−.0004094	6,620	2,221
New Jersey	.0012509	175,735	15,911	−.0002097	27,290	9,165
New Mexico	.0028295	66,481	6,022	−.0004745	10,327	3,470
New York	.0012447	415,811	37,631	−.0002086	64,557	21,670
North Carolina	.0020283	222,818	20,230	−.0003406	34,654	11,680
North Dakota	.0030418	35,804	3,249	−.0005106	5,567	1,875
Ohio	.0015396	310,552	28,108	−.0002581	48,218	16,187
Oklahoma	.0025640	146,303	13,248	−.0004299	22,722	7,633
Oregon	.0026727	13,625	12,345	−.0004481	21,172	7,112
Pennsylvania	.0012787	291,593	26,392	−.0002143	45,274	15,198
Rhode Island	.0027530	49,511	4,479	−.0004613	7,685	2,578
South Carolina	.0023696	134,707	12,201	−.0003974	20,924	7,031
South Dakota	.0024848	31,067	2,823	−.0004174	4,834	1,631
Tennessee	.0021463	187,106	16,960	−.0003601	29,074	9,778
Texas	.0012472	329,304	29,846	−.0002092	51,167	17,207
Utah	.0026525	66,496	6,037	−.0004454	10,342	3,485
Vermont	.0028134	27,312	2,471	−.0004714	4,239	1,422
Virginia	.0021463	211,640	19,261	−.0003609	32,958	11,141
Washington	.0024760	196,847	17,853	−.0004155	30,597	10,298
West Virginia	.0024427	89,675	8,119	−.0004095	13,934	4,675
Wisconsin	.0018536	163,814	14,879	−.0003113	25,483	8,593
Wyoming	.0029950	26,444	2,397	−.0005024	4,109	1,382

Table C-21. *a*, *b*, and *c* Parameters for Calculating Approximate Standard Errors for Days or Trips

(U.S. population 16 years old and older)

State	Sportsmen or Fishermen			Hunters		
	a	*b*	*c*	*a*	*b*	*c*
UNITED STATES	.00002204	95,029	6,871	−.00004198	16,317	5,758
Alabama	.0013273	96,321	6,997	−.0025325	16,568	5,869
Alaska	.0017617	11,694	855	−.0033690	2,016	718
Arizona	.0014083	73,666	5,335	−.0026840	12,656	4,472
Arkansas	.0014389	61,769	4,484	−.0027448	10,622	3,761
California	.0007229	331,769	22,936	−.0013156	54,442	19,223
Colorado	.0014301	78,574	5,715	−.0027298	13,521	4,795
Connecticut	.0014491	87,116	6,299	−.0027600	14,958	5,279
Delaware	.0017141	19,154	1,385	−.0032650	3,289	1,161
District of Columbia	.0019855	24,774	1,791	−.0037819	4,254	1,501
Florida	.0009157	182,397	13,216	−.0017455	31,343	11,080
Georgia	.0011929	120,875	8,774	−.0022755	20,786	7,359
Hawaii	.0016095	27,658	2,000	−.0030655	4,749	1,676
Idaho	.0017116	29,147	2,117	−.0032654	5,013	1,775
Illinois	.0009575	206,351	14,941	−.0018247	35,450	12,525
Indiana	.0011439	117,607	8,524	−.0021808	20,212	7,147
Iowa	.0013962	76,430	5,561	−.0026654	13,154	4,666
Kansas	.0014797	66,070	4,805	−.0028244	11,369	4,031
Kentucky	.0013433	91,228	6,638	−.0025646	15,702	5,570
Louisiana	.0011939	92,313	6,693	−.0022762	15,867	5,612
Maine	.0015950	33,507	2,429	−.0030410	5,759	2,037
Maryland	.0011664	93,110	6,736	−.0022221	15,991	5,645
Massachusetts	.0008030	89,409	6,465	−.0015294	15,352	5,417
Michigan	.0007891	136,395	9,887	−.0015044	23,442	8,290
Minnesota	.0012042	93,155	6,781	−.0022994	16,036	5,690

Table C-21. *a*, *b*, and *c* Parameters for Calculating Approximate Standard Errors for Days or Trips—Cont.

(U.S. population 16 years old and older)

State	Sportsmen or Fishermen			Hunters		
	a	*b*	*c*	*a*	*b*	*c*
Mississippi	.0013432	61,028	4,428	−.0025617	10,493	3,714
Missouri	.0011553	108,662	7,880	−.0022029	18,679	6,608
Montana	.0016165	23,529	1,712	−.0030865	4,050	1,437
Nebraska	.0016356	48,017	3,492	−.0031220	8,263	2,930
Nevada	.0015986	25,596	1,858	−.0030496	4,402	1,558
New Hampshire	.0014345	25,292	1,829	−.0027324	4,343	1,532
New Jersey	.0007345	104,274	7,549	−.0013999	17,907	6,329
New Mexico	.0016614	39,426	2,859	−.0031678	6,777	2,397
New York	.0007308	246,576	17,845	−.0013925	42,353	14,957
North Carolina	.0011912	132,160	9,631	−.0022755	22,760	8,084
North Dakota	.0017862	21,235	1,546	−.0034104	3,655	1,297
Ohio	.0009040	184,159	13,331	−.0017225	31,635	11,175
Oklahoma	.0015055	86,761	6,287	−.0028698	14,910	5,271
Oregon	.0015693	80,844	5,858	−.0029915	13,893	4,912
Pennsylvania	.0007508	172,916	12,516	−.0014306	29,703	10,491
Rhode Island	.0016164	29,359	2,123	−.0030785	5,041	1,779
South Carolina	.0013914	79,886	5,792	−.0026528	13,731	4,856
South Dakota	.0014593	18,428	1,345	−.0027899	3,176	1,130
Tennessee	.0012603	110,966	8,058	−.0024044	19,084	6,758
Texas	.0007323	195,297	14,178	−.0013970	33,585	11,892
Utah	.0015578	39,441	2,374	−.0029757	6,792	2,412
Vermont	.0016519	16,196	1,171	−.0031463	2,781	981
Virginia	.0012607	125,550	9,196	−.0024129	21,663	7,727
Washington	.0014540	116,747	9,488	−.0027751	20,088	7,121
West Virginia	.0014343	53,178	3,851	−.0027333	9,136	3,228
Wisconsin	.0010886	97,166	7,087	−.0020803	16,739	5,949
Wyoming	.0017587	15,683	1,139	−.0033549	2,697	955

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